IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

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| AMO DEVELOPMENT, LLC, AMO MANUFACTURING USA, LLC and AMO SALES AND SERVICE, INC., | ) | |
| Plaintiffs, | ) | C.A. No. 20-842 (CFC) |
| v. | ) | **DEMAND FOR JURY TRIAL** |
| ALCON VISION, LLC, ALCON LABORATORIES, INC. and ALCON RESEARCH, LLC, | ) | |
| Defendants. | ) | |

**SECOND AMENDED COMPLAINT**

Plaintiffs AMO Development, LLC, AMO Manufacturing USA, LLC, and AMO Sales and Service, Inc. (collectively, "J&J Vision") are part of Johnson & Johnson Vision, which represents the products and services of Johnson & Johnson Surgical Vision, Inc. and its affiliates. Johnson & Johnson Vision is part of Johnson & Johnson Medical Devices Companies of the Johnson & Johnson Family of Companies. J&J Vision, for its Complaint against Defendants Alcon Vision, LLC, Alcon Laboratories, Inc., and Alcon Research, LLC (collectively, "Alcon"), allege as follows:

## NATURE OF THE ACTION

1. This is a civil action for patent and copyright infringement. The infringed patents are U.S. Patent No. 8,394,084 ("the '084 patent"), U.S. Patent No. 8,403,921 ("the '921 patent"), U.S. Patent No. 8,425,497 ("the '497 patent"), U.S. Patent No. 8,500,724 ("the '724 patent"), U.S. Patent No. 8,709,001 ("the '001 patent"), U.S. Patent No. 9,095,415 ("the '415 patent"), U.S. Patent No. 9,101,448 ("the '448 patent"), U.S. Patent No. 9,107,732 ("the '732 patent"), U.S. Patent No. 9,125,725 ("the '725 patent"), U.S. Patent No. 9,233,023 ("the '023 patent"), U.S. Patent No. 9,233,024 ("the '024 patent"), U.S. Patent No. 9,474,648 ("the '648 patent"), U.S. Patent No. 9,693,903 ("the '903 patent"), U.S. Patent No. 9,693,904 ("the '904 patent"), U.S. Patent No. 10,376,356 ("the '356 patent"), and U.S. Patent No. 10,709,548 ("the '548 patent") (collectively, the "Asserted Patents"), based on Alcon's manufacture, use, offer to sell, sale, and import/export of the LenSx® Laser System ("LenSx"). The '084 patent, '921 patent, '497 patent, '724 patent, '001 patent, '415 patent, '448 patent, '732 patent, '725 patent, '648 patent, '903 patent, and '904 patent are referred to collectively herein as the "Palanker Patents." The '023 patent, '024 patent, '356 patent, and '548 patent are referred to collectively herein as the "Culbertson Patents."

2. The infringed copyrights ("Asserted Copyrights") protect (1) the computer programs that operate J&J Vision's IntraLase® FS Model 2 and Model 3

Laser systems and iFS® Advanced Femtosecond Laser systems (collectively, the "iFS® Laser"); (2) certain confidential submissions made by J&J Vision to the FDA to obtain approval for the iFS® Laser and IntraLase Fusion Laser[1] system, which include as attachments confidential technical documentation for the iFS® Laser and IntraLase Fusion Laser created by J&J Vision; and (3) the operator's manuals for the iFS® Laser system.

## PARTIES

3. Plaintiff AMO Development, LLC ("AMO Development") is a Delaware company with a principal place of business at 1700 East St. Andrew Place, Santa Ana, California. AMO Development is an indirect subsidiary of Johnson & Johnson Vision, Inc.

4. Plaintiff AMO Manufacturing USA, LLC ("AMO Manufacturing") is a Delaware company with a principal place of business at 510 Cottonwood Drive, Milpitas, California. AMO Manufacturing is an indirect subsidiary of Johnson & Johnson Vision, Inc.

5. Plaintiff AMO Sales and Service, Inc. ("AMO Sales and Service") is a Delaware corporation with a principal place of business at 1700 East St. Andrew

[1] The IntraLase Fusion Laser system was a modification of the IntraLase® FS Laser system.

Place, Santa Ana, California. AMO Sales and Service is an indirect subsidiary of Johnson & Johnson Vision, Inc.

6. Upon information and belief, Defendant Alcon Vision, LLC ("Alcon Vision") is a Delaware company with a principal place of business at 6201 South Freeway, Fort Worth, Texas.

7. Upon information and belief, Defendant Alcon Laboratories, Inc. ("Alcon Laboratories") is a Delaware corporation with a principal place of business at 6201 South Freeway, Fort Worth, Texas.

8. Upon information and belief, Defendant Alcon Research, LLC ("Alcon Research") is a Delaware company with a principal place of business at 6201 South Freeway, Fort Worth, Texas.

## JURISDICTION AND VENUE

9. This action arises under the patent laws of the United States, Title 35 of the United States Code, and the copyright laws of the United States, Title 17 of the United States Code. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

10. The Court has personal jurisdiction over Alcon Vision because it is a Delaware company and, upon information and belief, has regularly and systematically transacted business in Delaware and has committed acts of patent and copyright infringement in Delaware.

11. The Court has personal jurisdiction over Alcon Laboratories because it is a Delaware corporation and, upon information and belief, has regularly and systematically transacted business in Delaware and has committed acts of patent and copyright infringement in Delaware.

12. The Court has personal jurisdiction over Alcon Research because it is a Delaware company and, upon information and belief, has regularly and systematically transacted business in Delaware and has committed acts of patent and copyright infringement in Delaware.

13. Venue is proper in this judicial district pursuant to 28 U.S.C. § 1400(a) and (b).

## BACKGROUND

### The Asserted Patents

14. The ’084 patent is entitled “Apparatus for patterned plasma-mediated laser trephination of the lens capsule and three dimensional phaco-segmentation,” and was duly and legally issued on March 12, 2013. A true and correct copy of the ’084 patent is attached hereto as Exhibit A.

15. The ’921 patent is entitled “Method and apparatus for patterned plasma-mediated laser trephination of the lens capsule and three dimensional phaco-segmentation,” and was duly and legally issued on March 26, 2013. A true and correct copy of the ’921 patent is attached hereto as Exhibit B.

16. The ’497 patent is entitled “Method and apparatus for patterned plasma-mediated laser trephination of the lens capsule and three dimensional phaco-segmentation,” and was duly and legally issued on April 23, 2013. A true and correct copy of the ’497 patent is attached hereto as Exhibit C.

17. The ’724 patent is entitled “Method and apparatus for patterned plasma-mediated laser trephination of the lens capsule and three dimensional phaco-segmentation,” and was duly and legally issued on August 6, 2013. A true and correct copy of the ’724 patent is attached hereto as Exhibit D.

18. The ’001 patent is entitled “Method and apparatus for patterned plasma-mediated laser trephination of the lens capsule and three dimensional phaco-segmentation,” and was duly and legally issued on April 29, 2014. A true and correct copy of the ’001 patent is attached hereto as Exhibit E.

19. The ’415 patent is entitled “Method and apparatus for patterned plasma-mediated laser trephination of the lens capsule and three dimensional phaco-segmentation,” and was duly and legally issued on August 4, 2015. A true and correct copy of the ’415 patent is attached hereto as Exhibit F.

20. The ’448 patent is entitled “Method and apparatus for patterned plasma-mediated laser trephination of the lens capsule and three dimensional phaco-segmentation,” and was duly and legally issued on August 11, 2015. A true and correct copy of the ’448 patent is attached hereto as Exhibit G.

21. The ’732 patent is entitled “Method and apparatus for patterned plasma-mediated laser trephination of the lens capsule and three dimensional phaco-segmentation,” and was duly and legally issued on August 18, 2015. A true and correct copy of the ’732 patent is attached hereto as Exhibit H.

22. The ’725 patent is entitled “Method and apparatus for patterned plasma-mediated laser trephination of the lens capsule and three dimensional phaco-segmentation,” and was duly and legally issued on September 8, 2015. A true and correct copy of the ’725 patent is attached hereto as Exhibit I.

23. The ’023 patent is entitled “Method and apparatus for creating ocular surgical and relaxing incisions,” and was duly and legally issued on January 12, 2016. A true and correct copy of the ’023 patent is attached hereto as Exhibit J.

24. The ’024 patent is entitled “Method and apparatus for creating ocular surgical and relaxing incisions,” and was duly and legally issued on January 12, 2016. A true and correct copy of the ’024 patent is attached hereto as Exhibit K.

25. The ’648 patent is entitled “Apparatus for patterned plasma-mediated laser ophthalmic surgery,” and was duly and legally issued on October 25, 2016. A true and correct copy of the ’648 patent is attached hereto as Exhibit L.

26. The ’903 patent is entitled “Apparatus for patterned plasma-mediated laser ophthalmic surgery,” and was duly and legally issued on July 4, 2017. A true and correct copy of the ’903 patent is attached hereto as Exhibit M.

27. The ’904 patent is entitled “Apparatus for patterned plasma-mediated laser ophthalmic surgery,” and was duly and legally issued on July 4, 2017. A true and correct copy of the ’904 patent is attached hereto as Exhibit N.

28. The ’356 patent is entitled “Method and apparatus for creating ocular surgical and relaxing incisions,” and was duly and legally issued on August 13, 2019. A true and correct copy of the ’356 patent is attached hereto as Exhibit O.

29. The ’548 patent is entitled “Method and apparatus for creating ocular surgical and relaxing incisions,” and was duly and legally issued on July 14, 2020. A true and correct copy of the ’548 patent is attached hereto as Exhibit P.

30. AMO Development is the owner by assignment of each of the Asserted Patents.

31. AMO Manufacturing holds the exclusive license to manufacture products under the Asserted Patents, including the right to enforce the Asserted Patents jointly with AMO Development.

32. AMO Sales and Service holds the exclusive license to offer to sell and sell products under the Asserted Patents, including the right to enforce the Asserted Patents jointly with AMO Development.

**The Asserted Copyrights**

33. The copyright in the initial version of the IntraLase FS Model 2/Model 3 Software was registered with the U.S. Copyright Office as TX0008892568. A copy of the registration certificate is attached as Exhibit Q.

34. The copyright in IntraLase FS Model 2/Model 3 Software Version 1.01 was registered with the U.S. Copyright Office as TX0008892570. A copy of the registration certificate is attached as Exhibit R.

35. The copyright in IntraLase FS Model 2/Model 3 Software Version 1.02 was registered with the U.S. Copyright Office as TX0008892579. A copy of the registration certificate is attached as Exhibit S.

36. The copyright in IntraLase FS Model 2/Model 3 Software Version 1.03 was registered with the U.S. Copyright Office as TX0008892616. A copy of the registration certificate is attached as Exhibit T.

37. The copyright in IntraLase FS Model 2/Model 3 Software Version 1.04 was registered with the U.S. Copyright Office as TX0008892571. A copy of the registration certificate is attached as Exhibit U.

38. The copyright in IntraLase FS Model 2/Model 3 Software Version 1.05 was registered with the U.S. Copyright Office as TX0008892576. A copy of the registration certificate is attached as Exhibit V.

39. The copyright in IntraLase FS Model 2/Model 3 Software Version 1.06 was registered with the U.S. Copyright Office as TX0008892583. A copy of the registration certificate is attached as Exhibit W.

40. The copyright in IntraLase FS Model 2/Model 3 Software Version 1.07 was registered with the U.S. Copyright Office as TX0008892582. A copy of the registration certificate is attached as Exhibit X.

41. The copyright in IntraLase FS Model 2/Model 3 Software Version 1.08 was registered with the U.S. Copyright Office as TX0008892586. A copy of the registration certificate is attached as Exhibit Y.

42. The copyright in IntraLase FS Model 2/Model 3 Software Version 1.10 was registered with the U.S. Copyright Office as TX0008892565. A copy of the registration certificate is attached as Exhibit Z.

43. The copyright in IntraLase FS Model 2/Model 3 Software Version 1.12 was registered with the U.S. Copyright Office as TX0008892585. A copy of the registration certificate is attached as Exhibit AA.

44. The copyright in iFS Advanced Femtosecond Laser Software Version 2.02 was registered with the U.S. Copyright Office as TX0008892564. A copy of the registration certificate is attached as Exhibit BB.

45. The copyright in iFS Advanced Femtosecond Laser Software Version 2.04 was registered with the U.S. Copyright Office as TX0008892567. A copy of the registration certificate is attached as Exhibit CC.

46. The copyright in iFS Advanced Femtosecond Laser Software Version 2.20 was registered with the U.S. Copyright Office as TX0008892618. A copy of the registration certificate is attached as Exhibit DD.

47. The copyright in iFS Advanced Femtosecond Laser Software Version 2.30 was registered with the U.S. Copyright Office as TX0008892614. A copy of the registration certificate is attached as Exhibit EE.

48. The copyright in iFS Advanced Femtosecond Laser Software Version 2.50 was registered with the U.S. Copyright Office as TX0008892580. A copy of the registration certificate is attached as Exhibit FF.

49. The copyright in iFS Advanced Femtosecond Laser Software Version 2.60 was registered with the U.S. Copyright Office as TX0008892621. A copy of the registration certificate is attached as Exhibit GG.

50. The copyright in iFS Advanced Femtosecond Laser Software Version 2.70 was registered with the U.S. Copyright Office as TX0008892612. A copy of the registration certificate is attached as Exhibit HH.

51. The copyright in the iFS Laser System 510(k) Premarket Notification (K073404) was registered with the U.S. Copyright Office as TXu002260982. A copy

of the unofficial registration certificate is attached as Exhibit II. That registration encompasses, among other things, material drafted specifically for submission to the FDA, as well as the attached technical documentation other than previously published content of the draft operator's manual included therein.

52. The copyright in the IntraLase Fusion Laser System 510(k) Premarket Notification (K063682) was registered with the U.S. Copyright Office as TXu002261083. A copy of the unofficial registration certificate is attached as Exhibit JJ. That registration encompasses, among other things, material drafted specifically for submission to the FDA, as well as the attached technical documentation other than previously published content of the draft operator's manual included therein.

53. The copyright in the IntraLase FS Laser Operator's Manual was registered with the U.S. Copyright Office as TX0008971676. A copy of the unofficial registration certificate is attached as Exhibit KK.

54. The copyright registrations in Exhibits Q-HH were made prior to filing the First Amended Complaint, adding claims for copyright infringement of the Asserted Copyrights covered by those registrations. The copyright registrations in Exhibits II-KK were made prior to filing the Second Amended Complaint, which adds claims for copyright infringement of the Asserted Copyrights covered by those registrations.

55. AMO Development owns the Asserted Copyrights (and all rights thereunder, including the right to file suit), either through a written transfer agreement or as the original work-for-hire author of the works.

**Cataract Surgery**

56. Cataracts result from clouding of the crystalline lens of the eye. Left untreated, they can impair vision and ultimately result in blindness.

57. To restore vision in cataract patients, the diseased lens can be removed and replaced by an artificial intraocular lens. Cataract surgery is one of the most common surgical procedures in the United States.

58. Manual cataract surgery involves several challenging steps that require great expertise by the surgeon. To access the diseased lens, the surgeon must perform a capsulorhexis, in which a portion of the anterior capsule surrounding the lens is removed. Manual capsulorhexis involves freehand pulling and tearing of capsular tissue and presents the risk of unwanted tears in the capsule, which can increase surgical time and lead to poor clinical outcomes. Phacoemulsification is then used to break up the diseased lens into smaller pieces, typically using an ultrasonic probe, so that it can be removed. Extended use of the ultrasonic probe can cause excess cumulative dissipated energy in the eye and endothelial cell loss.

**The Patented Inventions and Copyrighted Works**

59. J&J Vision, through its OptiMedica subsidiary, was a pioneer in the field of laser cataract surgery. Founded in 2004, OptiMedica envisioned that laser surgery could be performed deep below the surface of the eye, using an ultrafast "femtosecond" laser, to treat disorders such as cataracts.

60. The Asserted Patents disclose and claim novel inventions that address the most important and difficult steps of cataract surgery, resulting in improved patient care and superior clinical outcomes.

61. The inventors of the Asserted Patents developed apparatus and methods for laser cataract surgery that enable the often difficult steps of cataract surgery to be performed precisely, consistently, and safely. One key insight was to incorporate an advanced imaging technology known as optical coherence tomography ("OCT") to identify structures in the anterior segment of the eye and to use the image data to control the laser to safely perform laser cataract surgery on the anterior capsule and crystalline lens of the eye. The laser is also configured to make controlled cataract incisions that allow entry into the eye and can promote wound healing and ensure sterility, together with relaxing incisions that precisely and reliably reduce astigmatism in cataract patients.

62. J&J Vision's patented technology revolutionized cataract surgery by allowing ophthalmologists to perform laser surgery on the anterior capsule and

crystalline lens with greater precision, safety, and ease than is possible in manual cataract surgery. The laser can perform an anterior capsulotomy with greater circularity, and with decreased likelihood of nicks and tears, which allows for improved positioning and centration of the intraocular lens. This dramatic advance is described in a November 2010 cover article published by the inventors in *Science Translational Medicine*, entitled "Femtosecond Laser-Assisted Cataract Surgery with Integrated Optical Coherence Tomography." As shown, OCT-guided laser cataract surgery (**B**) provided for the extraction of capsular tissue with far greater precision and reproducibility compared to manual cataract surgery (**A**):

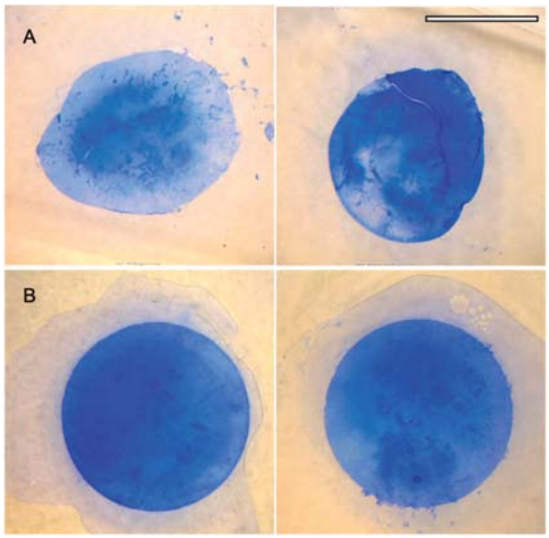
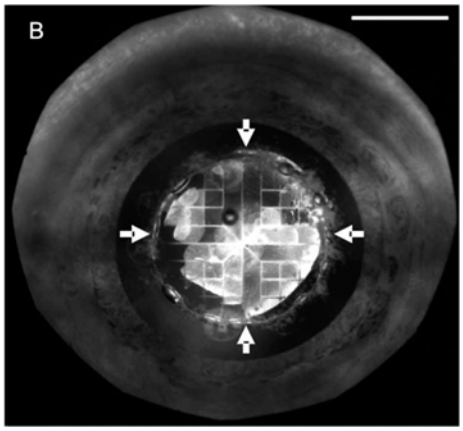



**Fig. 7.** Precision and reproducibility of lens capsule extraction. (**A** and **B**) Representative examples of the human lens capsule extracted after (A) manual capsulorhexis and (B) laser capsulotomy. Scale bar, 3 mm.

63. The OCT-guided laser also can make cuts in the diseased lens in a technique known as lens fragmentation, which reduces the amount of potentially damaging ultrasonic energy needed for phacoemulsification. As shown by the inventors in their *Science Translational Medicine* article, OCT-guided laser cataract

surgery can be used to segment the lens tissue, which allows the surgeon to remove the diseased lens faster and with less ultrasonic energy:




Segmentation of the diseased lens in this manner minimizes potential endothelial injury and results in faster visual recovery.

64. The inventors' work ultimately led to the Catalys® Precision Laser System, which was cleared by the U.S. Food and Drug Administration ("FDA") for commercial sale in 2011. This system employs the patented technology described and claimed in the Asserted Patents. The Catalys® Precision Laser System is marked with the Asserted Patents in accordance with 35 U.S.C. § 287(a).

65. In addition to the Catalys® Precision Laser System, J&J Vision manufactures the iFS® Laser, another ophthalmic surgical laser that is principally used for LASIK surgery. In addition to the laser hardware, the iFS® Laser includes proprietary software that directs the laser based on each patient's surgical parameters, provides a graphical user interface to aid the surgeon in comfortably performing the procedure, and performs various pre-procedure system checks and

calibration checks, among other functions. As described below, there have been several versions of the iFS® Laser software released over the years.

66. The iFS® Laser software is highly complex and creative, and is a key component of the laser equipment it operates. The software enables the surgeon to cut a corneal flap at predetermined parameters within the eye's corneal tissue. A surgeon can input a patient's precise surgical parameters into the software prior to surgery. The software then performs pre-procedure system checks to verify the readiness of the laser, and directs the laser to create a precise corneal flap based on the input parameters. The software also provides a graphical user interface, patient and surgeon database, system utilities, diagnostic and calibration tools, and error management. The authors of the iFS® Laser software made numerous creative decisions in writing the computer programs (including all of the registered updates) that were not dictated by hardware or other external functional constraints, including decisions regarding the structure, sequence, and organization of the program, the file system structure and naming conventions, the content of error messages, and the graphical user interface.

67. The iFS® Laser was initially developed by AMO Development's predecessor, IntraLase Corporation ("IntraLase"), which was founded in 1997 by Dr. Ron Kurtz and Dr. Tibor Juhasz. IntraLase's primary line of business was the development of computer-controlled ophthalmic lasers for use in LASIK

procedures. After releasing an initial model of such a laser in 2001, IntraLase released two new models (IntraLase® Model 2 and Model 3) in approximately November 2003 and June 2005, respectively. Those models utilized a different software program developed by IntraLase employees. That software was used in the corneal incision process, was designed for a new version of the operating system, and provided other functionality. As reflected in the source code files for Version 1.0 of the software, the principal author was an IntraLase employee named Peter Goldstein.

68. Employees at J&J Vision's predecessors periodically revised and updated the software that operated the IntraLase® Model 2 and Model 3 systems through 2007 (Versions 1.01 to 1.12), adding new creative elements to the software. As reflected in the source code and other documentation, Mr. Goldstein was among the authors of these revisions.

69. Around 2008, J&J Vision's predecessors released a new version of its system called the iFS® Advanced Femtosecond Laser. The software that operated that newer laser system built upon the existing source code for the IntraLase® Model 2 and Model 3 systems, with IntraLase employees adding additional creative elements to it. As reflected in the source code and related documentation for this version, Mr. Goldstein and another IntraLase employee, Kostadin Vardin, were among authors of that code.

70. The software for the iFS® Advanced Femtosecond Laser has been periodically updated since it was first released, with a number of versions released between 2008 and 2016, adding new creative elements. As reflected in the source code, Mr. Goldstein and Mr. Vardin were among the authors of the first such update (Version 2.02), which was developed largely over the course of 2007 and 2008 and released in early 2009.

71. Each version of the iFS® Laser software is a copyrightable computer program under the U.S. Copyright Act, and the Asserted Copyrights for those computer programs came into existence upon creation and fixation of each such version. The Asserted Copyrights for the iFS® Laser computer programs encompass all copyrightable expression embodied in those programs, including source code, object code, user interfaces, structure, sequence and organization, and all other literal and non-literal elements of those computer programs.

72. In addition to developing the iFS® Laser computer programs, IntraLase wrote confidential internal technical documentation relating to the iFS® Laser. That documentation included system risk and hazard analysis, software architecture design descriptions, software requirements documents, software design specifications, test execution plans, test verification and validations, and others. The authors of that documentation exercised creativity and judgment in drafting that documentation, and could have drafted it in any number of ways.

73. IntraLase also created operator's manuals for the iFS® Laser. The original version of the operator's manual at issue in this case was created in 2003, and was the basis of later versions of the iFS® Laser operator's manual. The 2003 operator's manual has been separately registered with the Copyright Office in its unpublished form. The authors of that operator's manual exercised creativity and judgment, and could have drafted it in any number of ways.

74. IntraLase and/or contractors hired by IntraLase also drafted submissions to the FDA as part of the process for obtaining regulatory approval pursuant to Section 510(k) of the Federal Food, Drug and Cosmetic Act and the Safe Medical Devices Act of 1990. Two such regulatory submissions are at issue here: one made in 2006, and one made in 2007. Each has been registered separately with the Copyright Office. The submissions included detailed descriptions of the iFS® Laser and IntraLase Fusion Laser products and the process by which the products were developed and tested. The authors of those submissions exercised creativity and judgment in drafting those submissions, and could have drafted them in any number of ways. Those FDA submissions also included, as attachments, internal technical documentation for the iFS® Laser and IntraLase Fusion Laser, respectively, and a draft version of the operator's manual.

75. Both FDA 510(k) submissions, including the internal technical documentation for the iFS® Laser and IntraLase Fusion Laser attached, respectively,

to each one, are copyrightable literary works and copyrightable compilations under the U.S. Copyright Act. The iFS® Laser's operator's manual is a copyrightable literary work. The Asserted Copyrights for those FDA 510(k) submissions, internal technical documentation, and operator's manual came into existence upon their creation and fixation. The Asserted Copyrights encompass all copyrightable expression embodied in those works, including the text, diagrams, structure, sequence and organization, and all other literal and non-literal elements of those works.

**Alcon's Infringement of J&J Vision's Patents**

76. Alcon manufactures and markets the LenSx in the United States. The LenSx is an OCT-guided laser system designed and intended to perform an anterior capsulotomy and lens fragmentation. The LenSx is also designed to make cataract incisions and relaxing incisions during cataract surgery. The LenSx user interface includes five Programs:


77. Upon information and belief, Alcon's customers in the United States and within this judicial district have used and continue to use the LenSx in accordance with instructions provided by Alcon.

78. The LenSx directly competes against J&J Vision's Catalys® Precision Laser System in a highly specialized technical market.

79. Upon information and belief, Alcon Research makes, uses, offers to sell, and/or sells the LenSx and consumables in the United States, and supplies or causes to be supplied the LenSx and consumables from the United States for use abroad. Upon information and belief, the LenSx is manufactured at facilities operated by Alcon Research in the United States, and is distributed both domestically and internationally. Upon information and belief, Alcon Research and its employees authored at least portions of the Operator's Manual for the LenSx, which instructs customers how to perform anterior capsulotomy, lens fragmentation, cataract incisions, and relaxing incisions using the LenSx in a manner that infringes the Asserted Patents.

80. Upon information and belief, Alcon Vision makes, uses, offers to sell, and/or sells the LenSx and consumables in the United States, and supplies or causes to be supplied the LenSx and consumables from the United States for use abroad. Upon information and belief, Alcon Vision acts as a distributor for the LenSx both domestically and internationally. Upon information and belief, Alcon Vision is responsible for repair and maintenance of LenSx systems used by its customers.

81. Upon information and belief, Alcon Laboratories makes, uses, offers to sell, and/or sells the LenSx and consumables in the United States, and supplies or

causes to be supplied the LenSx and consumables from the United States for use abroad. Upon information and belief, Alcon Laboratories is involved in the manufacture, distribution, and export of the LenSx. Upon information and belief, Alcon Laboratories sells consumables for the LenSx, including but not limited to the LenSx SoftFit Patient Interface, and charges customers for using the LenSx on a per-procedure basis.

82. Upon information and belief, Alcon Vision, Alcon Laboratories, and Alcon Research act as agents of each other and/or operate in concert as integrated parts of the same business group with respect to the LenSx.

**Alcon's Knowledge and Willful Patent Infringement**

83. The LenSx was originally developed by LenSx Lasers, Inc., which was founded well after OptiMedica filed its original provisional patent application that resulted in the Palanker Patents. Its founders and other early employees, including key personnel who designed the hardware and software incorporated into the LenSx, were previously affiliated with J&J Vision.

84. Alcon acquired "LenSx Lasers, Inc." in July 2010 and changed its name to "Alcon LenSx, Inc." in September 2010. In April 2021, during the pendency of this litigation, Alcon LenSx, Inc. merged with and into Alcon Research. Alcon commercially launched the LenSx in the United States in 2011. At the time, there was a small number of competitors seeking to commercialize laser cataract surgery

systems, including Alcon and J&J Vision. Upon information and belief, at that time, Alcon (including its predecessors) was a sophisticated company that closely tracked the activities and patent filings of its competitors in a highly specialized technical market. Upon information and belief, Alcon has continued to track the activities and patent filings of its competitors.

85. WO 2006/074469, the international counterpart patent application to the Palanker Patents, published on July 13, 2006. Alcon was aware of that application on or about July 30, 2008, and Alcon's knowledge is confirmed by citation to WO 2006/074469 in connection with its own patent applications. WO 2006/074469 is well-known to Alcon given that it has been cited in connection with at least 10 Alcon patent applications since 2006. Upon information and belief, Alcon (including its predecessors) was aware of this patent application and its applicability to the LenSx when it commercially launched the LenSx in the United States. Upon information and belief, given the relationship of this application to the Palanker Patents, Alcon's knowledge of WO 2006/074469 also resulted in knowledge of the Palanker Patents at or about the time that they issued.

86. US 2006/0195076, the United States patent application that resulted in the Palanker Patents, published on August 31, 2006. Alcon was aware of that application no later than February 25, 2008, and Alcon's knowledge is confirmed by citation to US 2006/0195076 in connection with its own patent applications. US

2006/0195076 is well-known to Alcon given that it has been cited in connection with at least 30 Alcon (including its predecessors) patent applications since 2006. Upon information and belief, Alcon (including its predecessors) was aware of this patent application and its applicability to the LenSx when it commercially launched the LenSx in the United States. Upon information and belief, given the relationship of this application to the Palanker Patents, Alcon's knowledge of US 2006/0195076 also resulted in knowledge of the Palanker Patents at or about the time that they issued.

87. US 2008/0281303, the United States patent application that resulted in the Culbertson Patents, published on November 13, 2008. Alcon was aware of that application no later than April 6, 2010, and Alcon's knowledge is confirmed by its citation to US 2008/0281303 in connection with its own patent applications. US 2008/0281303 is well-known to Alcon given that it has been cited in connection with at least 21 Alcon (including its predecessors) patent applications since 2010. Upon information and belief, Alcon (including its predecessors) was aware of this patent application and its applicability to the LenSx when it commercially launched the LenSx in the United States. Upon information and belief, given the relationship of this application to the Culbertson Patents, Alcon's knowledge of US 2008/0281303 also resulted in knowledge of the Culbertson Patents at or about the time that they issued.

88. Upon information and belief, when Alcon acquired LenSx Lasers, Inc. in July 2010, the acquisition agreement included an Escrow Balance that was intended to cover any one-time payment or future royalty payments arising from claims of patent infringement. Upon information and belief, the acquisition agreement also contemplated that the Alcon and the prior owners of LenSx Lasers, Inc. would equally share liability for payments arising from patent infringement up to $400 million. Upon information and belief, these provisions of the acquisition agreement were included to address the risk of liability arising from the then-pending patent applications that resulted in the Asserted Patents. Upon information and belief, Alcon knew that the manufacture, use, offer to sell, and/or sale of the LenSx would infringe patents that issued from the then-pending patent applications, and/or subjectively believed that there was a high probability of infringement and took deliberate actions to avoid learning these facts.

89. J&J Vision's patent rights were well-known within the industry. For example, the inventors described their patented technology in a November 2010 cover article for *Science Translational Medicine*, entitled "Femtosecond Laser-Assisted Cataract Surgery with Integrated Optical Coherence Tomography." Upon information and belief, Alcon was familiar with and had reviewed that article prior to the commercial launch of the LenSx. The article provided notice that J&J Vision's

predecessor "OptiMedica has filed patents on the technology described in the paper," specifically identifying patent applications that resulted in the Asserted Patents.

90. J&J Vision's patent rights were also described in a March 2011 article published in *Cataract & Refractive Surgery Today*, entitled "The Origins of Laser Cataract Surgery." Upon information and belief, Alcon authorized William J. Link, the former Chairman of LenSx Lasers, Inc., be interviewed for that article on its behalf. Upon information and belief, Alcon was familiar with and had reviewed that article prior to the commercial launch of the LenSx. The article described J&J Vision's pending patent applications that led to the Asserted Patents. A representative of J&J Vision's predecessor was quoted as saying, "There's a lot of intellectual property that we filed early that was very forward-thinking, and it was all about image-guidance of femtosecond laser for cataract, capsulotomy, fragmentation, softening, corneal incisions, astigmatic correction, and so those things we've been thinking about since day 1."

91. On February 25, 2013, a press release announced "OptiMedica Granted Fundamental Patent on Laser Cataract Surgery by U.S. Patent & Trademark Office." The press release indicated that the '084 patent will issue on March 12, 2013, and that "[t]he U.S. patent supporting Catalys is one in a series that OptiMedica has filed for the system and its underlying technology worldwide." Alcon has admitted that it was aware of this press release shortly after it issued.

92. The ’084 patent, one of the Palanker Patents, issued on March 12, 2013. Alcon was aware of the ’084 patent, and upon information and belief its applicability to the LenSx, no later than March 12, 2013—the date of patent issuance. Alcon’s knowledge is further confirmed by its citation to the ’084 patent in connection with its own patent applications. Alcon has also admitted that it was aware of several additional Palanker Patents shortly after issuance. D.I. 77-1 at 3-4. Alcon was aware of the ’497 patent, and upon information and belief its applicability to the LenSx, no later than April 29, 2013—just one week after the ’497 patent issued. Alcon was aware of the ’497 patent, and upon information and belief its applicability to the LenSx, no later than April 29, 2013—just six days after the ’497 patent issued. Alcon was aware of the ’921 patent, and upon information and belief its applicability to the LenSx, no later than June 3, 2013—just two months after the ’921 patent issued. Alcon was aware of the ’724 patent, and upon information and belief its applicability to the LenSx, no later than August 12, 2013—just six days after the ’724 patent issued. Alcon was aware of the ’001 patent, and upon information and belief its applicability to the LenSx, no later than May 6, 2014—just one week after the ’001 patent issued. Alcon’s admitted knowledge of the ’084, ’497, ’921, ’724, and ’001 patents very shortly after issuance indicates that Alcon was tracking at least the applications that resulted in the ’084, ’497, ’921, ’724, and ’001 patents even before the patents issued. Upon information and belief, given the relationship of the ’084,

'497, '921, '724, and '001 patents to the other Palanker Patents, Alcon's knowledge of the '084, '497, '921, '724, and '001 patents also resulted in knowledge of the other Palanker Patents at or about the time that they issued.

93. On March 24, 2020, J&J Vision identified each of the Palanker Patents to Alcon and explained that the manufacture, use, offer to sell, and/or sale of the LenSx infringes the Palanker Patents. Alcon admits that it became aware of the remaining Palanker Patents by March 24, 2020. On April 14, 2020, J&J Vision provided exemplary claim charts that showed how claims of the Palanker Patents read on the LenSx. J&J Vision also requested Alcon identify any limitations of the patent claims that it contends are not met by the LenSx. Alcon failed to identify any missing limitation of the patent claims in response to that correspondence.

94. On July 14, 2020, J&J Vision identified each of the Culbertson Patents to Alcon and explained that the manufacture, use, offer to sell, and/or sale of the LenSx infringes the Culbertson Patents. Alcon admits that it became aware of the Culbertson Patents by July 14, 2020. On August 4, 2020, J&J Vision provided exemplary claim charts that showed how claims of each of the Culbertson Patents read on the LenSx.

95. Alcon also had knowledge of the Asserted Patents because the Catalys® Precision Laser System is marked with the Asserted Patents pursuant to 35 U.S.C. § 287(a).

96. Upon information and belief, at the time it learned of the Asserted Patents, Alcon knew that the patented technology was fundamental to the operation and success of the LenSx. For example, Alcon stated: "the LenSx® laser uses a range of highly advanced technologies – including integrated optical coherence tomography (OCT) – to capture incredibly precise, high-resolution images of your eyes. These images – and the measurements and data they provide – are then used to plan and perform a surgery to exacting specifications not attainable with traditional surgery."

97. Given the similarity of the Asserted Patents to the technology incorporated in the LenSx and touted in Alcon's product literature, Alcon's knowledge of the Asserted Patents would immediately have given it knowledge that the LenSx and its use infringe the Asserted Patents.

98. Despite its knowledge of the Asserted Patents and the LenSx's design, operation, and use, Alcon has knowingly and willfully infringed and continues to knowingly and willfully infringe the patents by making, using, offering to sell, and/or selling the LenSx, and instructing its customers to use the LenSx in a manner that infringes the Asserted Patents. Alcon has acted despite a risk of infringement that was either known or so obvious that it should have been known. Upon information and belief, after learning of the Asserted Patents, Alcon has not made any changes to the LenSx (or its instructions for use) in order to avoid infringement.

Alcon's knowing infringement of the Asserted Patents is thus wanton, malicious, deliberate, consciously wrongful, flagrant, egregious, willful, and in bad faith.

**Theft of the Copyrighted Computer Programs**

99. Dr. Kurtz left IntraLase Corp. to found LenSx Lasers, Inc. Soon thereafter, LenSx hired a number of research and development personnel from J&J Vision's predecessor, including Mr. Goldstein in or about 2008, Dr. Juhasz (who was named Chief Technology Officer of LenSx) in or about 2008, and Mr. Vardin (who was named Principal Software Engineer for LenSx) in or about 2009. Mr. Goldstein and Mr. Vardin each had direct access to the iFS® Laser computer programs.

100. Upon information and belief, LenSx incorporated one or more protected elements from the copyrighted iFS® Laser computer programs into the software for the LenSx, without authorization.

101. Upon information and belief, the theft of the iFS® Laser software code allowed LenSx to accelerate the development of its laser system. The LenSx received clearance from the FDA for anterior capsulotomies in August 2009, and FDA clearance for corneal incisions in December 2009.

102. Upon information and belief, Alcon unlawfully used and is continuing to use J&J Vision's copyrighted computer programs (or copyrightable elements thereof) as part of the software that operates the LenSx. The installed version of the

LenSx software (at least as of Version 2.20.02) exhibits an overwhelming number of telltale signs of copying of J&J Vision's copyrighted computer programs, including but not limited to the following:

a. The LenSx® file system mirrors the file structure of an iFS® Laser, with file folders with identical names, including "*_energy*", "*_fact*", "*_io*", "*_manager*", and "*_pattern*".

b. The LenSx® includes a number of on-screen instructions identical to those on an iFS® Laser, right down to the punctuation and nonstandard capitalization, *e.g.*, "Insert Memory Stick into USB Port, Wait for Light to Go Off …" and "Make Sure a Memory Stick is Inserted into USB Port!".

c. The LenSx object code files includes over 300 references to file, function, and object names and other text that are identical to and originate in the iFS® Laser source code—far too many to be mere coincidence.

d. The object code file for the LenSx software module controlling the beam steering process (*beam_control*) references unique function names that were originally in the iFS® Laser source code ("*bsx_thread*", "*bsy_thread*", "*check_inputs*", "*read_z_enc_value*", "*set_outputs*", "*wait_beam_cmnd*"). The same object code file includes at least fifty unique data object names that were originally in the iFS® Laser source code (*e.g.*, "*estop_coid*", "*estop_msg*", "*mutex*", "*ok_for_ftsw_off*", "*ok_for_ftsw_on*", "*passlevel*", "*ptrn_file*", "*ptrn_rmsg*",

"*ptrn_smsg*"). That file also contains error codes and other text that are identical to, and originate in, the iFS® Laser source code (*e.g.*, "*Non Positive Spot Separation Value – Fatal Error*", "*Invalid Service Code from Client Process*", "*Minimum Z Value Exceeds Maximum Depth in Contact Glass*", "*< beam > - Could Not Locate ESTOP*").

e. The object code file for the LenSx software module responsible for positioning the laser to the proper position (*scanners*) includes at least seventeen unique function names (*e.g.*, "*dig_to_ana*", "*get_aio_base_address*", "*gui_comm_request*", "*init_dio_board*", "*read_z_enc_value*", "*sig_handlr*"), seventy-five unique data object names (*e.g.*, *"aio_base"*, *"aio_reg"*, "*lpoint*", "*rr_divider*"), and other text (e.g., "*/galvo_points*", "*No Additional Information Available*", "*Invalid Pattern ID from Client Process*"), that is identical to, and originate in, the iFS® Laser source code.

f. The LenSx exhibits similar or identical behaviors to various error conditions. For example, when the "*/_io/errorint*" process is removed from the iFS® Laser, it will display the following error: "*< laser > Failed to Spawn ERRORINT . . . Failed to Start Child Processes !*" When the "*/_io/errirq*" process was removed from the LenSx, the LenSx displayed a nearly identical error message, including the extra space before the final exclamation mark: "*< laser > Failed to Spawn errirq . . . Failed to Start Child Processes !*"

g. Both the iFS® Laser and LenSx systems register process names with the operating system to facilitate interprocess communication. In the iFS® Laser, the registered process name matches the name of the file containing the code for that process. For example, the iFS® Laser registers a process name with the operating system called "***ERRORINT***", corresponding to a process file called "*/_io/**errorint***." The LenSx contains registered process names that are identical to those in the iFS® Laser, even where the underlying process files in the LenSx do not match the corresponding process name. For instance, in the LenSx, there is a process file named "*/_io/**errirq***" but when the LenSx registers the corresponding process name with the operating system, it uses the same process name as the iFS® Laser: "***ERRORINT***." This in particular is evidence that Alcon attempted to cover up the evidence of copying by changing certain names.

103. Upon information and belief, the LenSx software continues to incorporate one or more protected elements of the copyrighted iFS® Laser computer programs. Since 2014, Alcon has made three submissions to the FDA seeking approval to market modified versions of the LenSx, based on the assertion that the modified device is "substantially equivalent" to an earlier-approved device. A review of those filings, called "section 510(k) premarket notifications," provides no indication that Alcon has replaced the LenSx software with new and original software. To the contrary, those filings suggest that any changes were only to add,

rather than remove or modify, functionality. The 2016 510(k) filing indicated that software updates were to "implement the use of a planner Ethernet device for cataract surgery, re-enabling flap functionality that was previously cleared, and introducing an optional lens fragmentation pattern whose parameters are within previously cleared treatment ranges." The 2017 510(k) filing indicated that no changes to the LenSx software had been made. And the 2018 filing indicated that software updates were implemented only to support new functionality to create corneal tunnels and corneal pockets.

104. On July 14, 2020, J&J Vision informed Alcon of numerous similarities to the iFS® Laser present in the LenSx software, and invited Alcon to explain the source of those similarities. Alcon did not deny that those similarities existed and continue to exist, and it provided no explanation for the telltale signs of copying that J&J Vision identified.

105. In late 2020, after the filing of the First Amended Complaint, the parties exchanged source code. The ensuing inspection led to the discovery that Alcon had stolen electronic copies of the iFS® Laser source code, and incorporated at least 26,000 lines of that code wholesale into the LenSx computer program—including typos and dates from well before development of the LenSx began. The LenSx relies on the stolen code for core functionality, including operating the movement of its laser. Alcon's theft was so widespread and indiscriminate that Alcon even

incorporated stolen code that the LenSx does not use. To this day—even after being informed of the stolen code that operates the LenSx—Alcon continues to manufacture and sell machines with infringing code.

**Alcon's Ongoing Acts of Copyright Infringement of J&J Vision's Computer Programs**

106. Upon information and belief, Alcon has manufactured, and continues to manufacture, the LenSx in the United States, each of which contains one or more copies of software that incorporates one or more protected elements of the copyrighted iFS® Laser computer programs. In addition, upon information and belief, Alcon has made, and continues to make, additional copies of the LenSx software that incorporate one or more protected elements of the copyrighted iFS® Laser computer programs, including in the course of developing, testing, manufacturing, and distributing new versions of, or updates to, the LenSx software. These acts constitute unauthorized and unlawful reproduction of J&J Vision's copyrighted computer programs.

107. Upon information and belief, Alcon has created, and continues to create, modified versions of software based on the copyrighted iFS® Laser computer programs, including when developing, testing, and manufacturing new versions of the LenSx software. These acts constitute unauthorized and unlawful preparation of derivative works based upon J&J Vision's copyrighted computer programs.

108. Upon information and belief, Alcon has distributed, and continues to distribute, the LenSx within the United States, each of which contains one or more copies of software that incorporates one or more protected elements of the copyrighted iFS® Laser computer programs. In addition, upon information and belief, Alcon has distributed, and continues to distribute, within the United States, new versions of, or updates to, the LenSx software that incorporate one or more protected elements of the copyrighted iFS® Laser computer programs. These acts constitute unauthorized and unlawful distribution of J&J Vision's copyrighted computer programs to the public.

109. Upon information and belief, Alcon also has exported, and continues to export, the LenSx, each of which contains one or more copies of software that incorporates one or more protected elements of the copyrighted iFS® Laser computer programs. In addition, upon information and belief, Alcon has exported, and continues to export, new versions of, or updates to, the LenSx software that incorporate one or more protected elements of the copyrighted iFS® Laser computer programs. These acts constitute unauthorized and unlawful exportation from the United States of works infringing J&J Vision's copyrighted computer programs.

110. Each of Alcon's LenSx customers has made, and continues to make, copies of LenSx software each time that software is loaded into the random access memory of the LenSx. In addition, upon information and belief, each of Alcon's

LenSx customers also has made, and continues to make, copies of LenSx software each time they install new versions of, or software updates to, the LenSx software on the LenSx. As a result, users of the LenSx are engaged in unauthorized and unlawful reproduction of the protected elements of the copyrighted iFS® Laser computer programs that are incorporated into the LenSx software. Upon information and belief, Alcon profits from its LenSx customers' ongoing unauthorized acts of direct infringement. Specifically, Alcon sells consumable parts and receives ongoing procedure and maintenance fees from its customers based on their use of LenSx. Moreover, upon information and belief, Alcon has the right and ability to stop or limit those acts of infringement, but has declined to do so. Specifically, Alcon could decline to sell customers the necessary consumable parts, or could provide software updates that would replace the infringing software on its customers' devices. In addition, upon information and belief, Alcon has induced and/or encouraged its customers to use the LenSx, with the knowledge that doing so would necessarily cause its customers to create unlawful and unauthorized copies of protected elements of J&J Vision's copyrighted computer programs.

111. J&J Vision put Alcon on notice of its acts of copyright infringement at least as of July 14, 2020, when J&J Vision sent a letter identifying unambiguous evidence of such copying. Nonetheless, upon information and belief, Alcon has continued to infringe J&J Vision's copyrighted computer programs.

**Theft of the iFS® Laser FDA Submissions, Internal Technical Documentation, and Operator's Manual**

112. In the course of document discovery after the filing of the First Amended Complaint, J&J Vision discovered that, in addition to taking J&J Vision's highly confidential copyrighted source code, Alcon had also stolen highly confidential business records—specifically, internal iFS® Laser technical documentation, and confidential submissions to the FDA. On information and belief, Alcon stole either or both of the 2006 IntraLase Fusion Laser and 2007 iFS® Laser FDA 510(k) submissions, as well as internal technical documentation for the IntraLase Fusion Laser and iFS® Laser.

113. Alcon then incorporated that stolen material into its own internal documentation and submissions to the FDA. For instance, a "software architecture description" document submitted by Alcon to the FDA in 2009 (produced as ALCON_LENSX044001) has pages of content that is identical to that found in an earlier iFS® Laser document (produced as JJSV_0133829), including technical diagrams that have been haphazardly relabeled and identical descriptions of software processes. Indeed, metadata within many of Alcon's technical documents demonstrates that those documents originated at IntraLase.

114. On information and belief, LenSx continued to submit infringing material to the FDA over and over again, including as late as November 2017. For instance, an entire section of Alcon's 2017 510(k) submission, describing Alcon's

software development environment, was lifted wholesale from an earlier IntraLase document.

115. In addition to copying the FDA submissions and internal technical documents, Alcon copied content wholesale out of the operator's manual for the iFS® Laser, and incorporated it wholesale into the operator's manual for the LenSx. This included warnings and descriptions of safety features on the LenSx. Indeed, the LenSx operator's manual that Alcon submitted into the docket includes content copied verbatim from the iFS® Laser operator's manual. *See* D.I. 21-2, at 18-19. On information and belief, Alcon has distributed, and has continued to distribute, copies of this infringing user manual to customers to this day.

116. These are just a few examples of Alcon's wholesale copying of J&J Vision documents. Further discovery and investigation is likely to uncover more instances of copying.

117. J&J Vision had no reason to believe that Alcon had copied this material until shortly before filing this Second Amended Complaint. Alcon's copying of the source code did not necessarily also require copying of this documentation. And Alcon's submissions to the FDA were filed confidentially, such that J&J Vision could not have known that infringing material was being submitted to the FDA as part of the regulatory approval process for the LenSx.

**COUNT I**

Infringement of the '084 Patent

118. J&J Vision incorporates by reference the allegations set forth in paragraphs 1 through 117 as though fully set forth herein.

119. Alcon has directly and indirectly infringed, and continues to infringe, literally or under the doctrine of equivalents, one or more claims of the '084 patent, by making, using, offering to sell, and/or selling the LenSx and consumables in the United States, and supplying or causing to be supplied the LenSx and consumables from the United States for use abroad, without authority or license, in violation of 35 U.S.C. § 271.

120. For example, the LenSx meets each limitation of claim 1 of the '084 patent, which recites:

A system for cataract surgery on an eye, comprising:

a. a pulsed laser configured to produce a treatment beam which creates dielectric breakdown in a focal zone of the treatment beam within one or more tissue structures of a cataractous crystalline lens;

b. a three-dimensional, optical coherence tomography imaging assembly capable of creating a continuous depth profile of the anterior portion of the cataractous crystalline lens, the profile comprising information regarding the location of a capsule of the cataractous crystalline lens and structures within the crystalline lens, by detecting remitted illumination light from locations distributed throughout a volume of the cataractous crystalline lens, and generating signals based upon the remitted light;

c. an optical scanning system configured to position a focal zone of the treatment beam to a targeted location in three dimensions in the crystalline lens; and

d. one or more controllers operatively coupled to the laser, optical system, and imaging assembly, and programmed to automatically:

i. scan tissues of the patient's eye with the imaging assembly so as to generate image data signals to create a continuous depth profile of at least the anterior portion of the lens;

ii. identify one or more boundaries of the one or more tissue structures of the cataractous crystalline lens based at least in part on the image data;

iii. identify one or more treatment regions based upon the boundaries; and

iv. operate the optical scanning system with the pulsed laser to produce a treatment beam directed in a pattern based on the one or more treatment regions so as to create a capsulotomy in the anterior portion of the lens, the treatment beam having a pulse repetition rate between about 1 kHz and about 1,000 kHz, and a pulse energy between about 1 microjoule and about 30 microjoules.

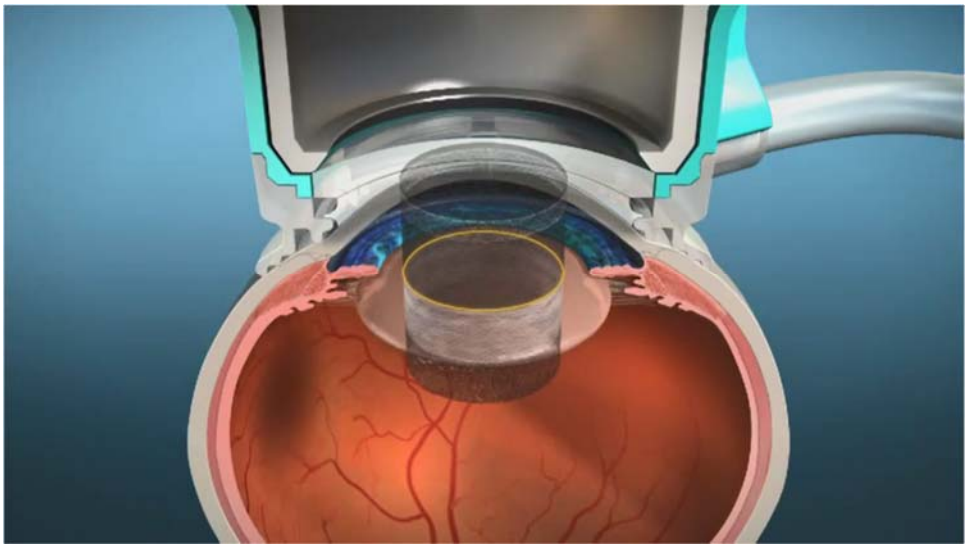
121. The LenSx is a system for cataract surgery on an eye. For example, Alcon has stated that the LenSx is "indicated for use in patients undergoing cataract surgery." Upon information and belief, the LenSx is designed and "indicated for . . . anterior capsulotomy and laser phacofragmentation during cataract surgery."

122. The LenSx has a pulsed laser configured to produce a treatment beam which creates dielectric breakdown in a focal zone of the treatment beam within one

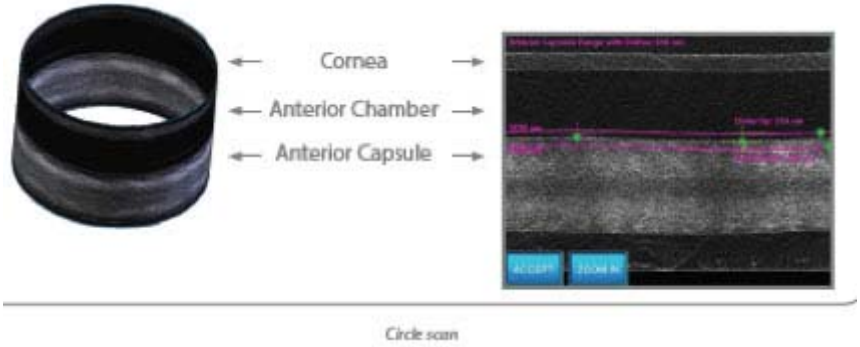
or more tissue structures of a cataractous crystalline lens. For example, Alcon has stated that the LenSx has "an ophthalmic surgical laser which uses focused femtosecond laser pulses to create incisions and to separate tissue within the lens capsule, crystalline lens, and the cornea. A femtosecond light pulse[] is focused into a sufficiently small spot in order to achieve photodisruption of the tissue inside the focus. A tiny volume of tissue, a few microns in diameter, is thereby photodisrupted at the laser focus. A computer-controlled scanning system directs the focused laser beam throughout a three-dimensional pattern to produce an incision." Upon information and belief, the photodisruption is achieved through dielectric breakdown within the tissue structures.

123. The LenSx includes a three-dimensional, optical coherence tomography imaging assembly capable of creating a continuous depth profile of the anterior portion of the cataractous crystalline lens, the profile comprising information regarding the location of a capsule of the cataractous crystalline lens and structures within the crystalline lens, by detecting remitted illumination light from locations distributed throughout a volume of the cataractous crystalline lens, and generating signals based upon the remitted light. Upon information and belief, the LenSx uses a 3D spectral domain OCT imaging assembly. For example, Alcon has stated that its OCT imaging assembly is "a low power visible wavelength light source that is scanned throughout the transparent structures of the anterior chamber

of the eye." Upon information and belief, the LenSx uses its OCT imaging assembly to generate what Alcon refers to as a circle scan. For example, Alcon has illustrated a circle scan as follows:



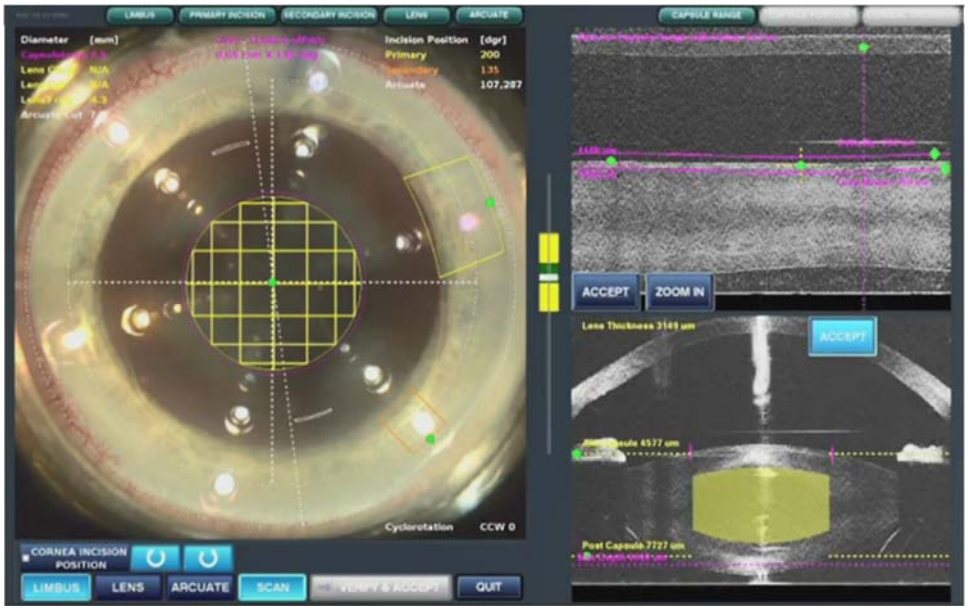
The circle scan provides a continuous depth profile of the anterior portion of the cataractous crystalline lens. For example, the depth profile is shown in the following diagram that Alcon uses to describe the circle scan:




124. The LenSx includes an optical scanning system configured to position a focal zone of the treatment beam to a targeted location in three dimensions in the crystalline lens. For example, Alcon has stated that the LenSx has "an ophthalmic

surgical laser which uses focused femtosecond laser pulses to create incisions and to separate tissue within the lens capsule, crystalline lens, and the cornea. A femtosecond light pulse[] is focused into a sufficiently small spot in order to achieve photodisruption of the tissue inside the focus. A tiny volume of tissue, a few microns in diameter, is thereby photodisrupted at the laser focus. A computer-controlled scanning system directs the focused laser beam throughout a three-dimensional pattern to produce an incision."

125. The LenSx includes one or more controllers operatively coupled to the laser, optical system, and imaging assembly, and programmed to automatically scan tissues of the patient's eye with the imaging assembly so as to generate image data signals to create a continuous depth profile of at least the anterior portion of the lens. For example, Alcon has stated that in the LenSx, "[a] computer monitors and controls the beam energy, repetition rate, safety shutters, footswitch, laser diagnostics, the position of the scanners and the position of the scanning objective lens." For example, Alcon has shown the continuous depth profile as follows:




126. The LenSx includes one or more controllers operatively coupled to the laser, optical system, and imaging assembly, and programmed to automatically identify one or more boundaries of the one or more tissue structures of the cataractous crystalline lens based at least in part on the image data. For example, Alcon has stated that in the LenSx, "[a] computer monitors and controls the beam energy, repetition rate, safety shutters, footswitch, laser diagnostics, the position of the scanners and the position of the scanning objective lens." Upon information and belief, the computer auto-finds the anterior and posterior surfaces of the lens capsule. Upon information and belief, the computer generates two horizontal lines on the OCT image and indicates the depth of the anterior capsule based at least in part on the image data, as shown in the image above.

127. The LenSx includes one or more controllers operatively coupled to the laser, optical system, and imaging assembly, and programmed to automatically

identify one or more treatment regions based upon the boundaries. For example, Alcon has stated that the LenSx "includes an optical coherence tomography (OCT) based imaging device that assists in localizing specific target locations."

128. The LenSx includes one or more controllers operatively coupled to the laser, optical system, and imaging assembly, and programmed to automatically operate the optical scanning system with the pulsed laser to produce a treatment beam directed in a pattern based on the one or more treatment regions so as to create a capsulotomy in the anterior portion of the lens, the treatment beam having a pulse repetition rate between about 1 kHz and about 1,000 kHz, and a pulse energy between about 1 microjoule and about 30 microjoules. For example, Alcon has stated that in the LenSx, "a computer-controlled scanning system directs the focused laser beam throughout a three-dimensional pattern to produce an incision…. The location of the tissue photodisruption is controlled by moving the focus of the laser beam to the desired surgical target location." Upon information and belief, the LenSx is indicated for use in the creation of an anterior capsulotomy and laser phacofragmentation during cataract surgery. Upon information and belief, the LenSx has a 50 kHz repetition rate for cataract surgery. Upon information and belief, the LenSx has a maximum pulse energy of 15 microjoules for cataract surgery.

129. Alcon's manufacture, use, offer to sell, and sale of the LenSx in the United States has infringed and continues to infringe the '084 patent under 35 U.S.C. § 271(a).

130. Alcon's customers in the United States have directly infringed and continue to directly infringe the '084 patent by using the LenSx for its FDA-approved indications (including anterior capsulotomy and laser phacofragmentation).

131. Alcon has actively induced and continues to actively induce infringement of the '084 patent by encouraging its customers to use the LenSx, with specific intent, knowledge and/or willful blindness that the induced acts constitute patent infringement, in violation of 35 U.S.C. § 271(b). Upon information and belief, Alcon's inducing acts include marketing the LenSx, supporting the ongoing use of the LenSx by providing consumables such as the LenSx SoftFit Patient Interface for use with the LenSx, and providing installation, maintenance, service, and/or repair of the LenSx. Alcon has stated that the "LenSx® Laser requires use of proprietary sterile disposable Patient Interfaces." Alcon has further stated "[t]he consumables used in conjunction with ALCON® instrument products constitute a complete surgical system." Alcon's inducing acts also include providing instructions to use the LenSx for its FDA-approved indications (including anterior capsulotomy and laser phacofragmentation) in an infringing manner, including providing the

information relevant to each of the claim limitations that is referenced and/or quoted in the paragraphs above. Additionally, upon information and belief, Alcon publishes and provides product documentation and educational materials that instruct and encourage its customers to use the LenSx for its FDA-approved indications in an infringing manner, with knowledge and/or with willful blindness that the induced acts constitute patent infringement. Moreover, upon information and belief, Alcon warns customers in the Operator's Manual for the LenSx that its "instructions must be observed."

132. Alcon has known of the '084 patent and of its infringement prior to this litigation, and it is further on notice through this lawsuit. Alcon's knowledge of the '084 patent, together with its knowledge about the design and operation of the LenSx, gave Alcon knowledge that its customers' use of the LenSx constitutes patent infringement, because the language of the '084 patent claims plainly reads upon the LenSx. Alcon's knowledge of infringement is also demonstrated by its receipt of correspondence and infringement charts specifically identifying its infringing acts, the allegations contained in the original complaint, its prior knowledge of the patent and the subject matter claimed, its statements touting the advantages of features that it knew to be patented, and the affirmative measures it took to address its risk of liability for patent infringement. Alcon's specific intent to induce infringement is demonstrated by its continued infringing acts despite this knowledge.

133. Alcon has contributed to and continues to contribute to infringement of the ’084 patent by offering to sell and selling the LenSx that its customers use to infringe the patent, in violation of 35 U.S.C. § 271(c). Alcon does so knowing that the LenSx constitutes a material part of the invention, and that it is especially made and especially adapted for use in an infringement of the patent. The LenSx is designed and configured so that the customer will use the system to perform FDA-approved anterior capsulotomy and lens fragmentation in a manner that infringes the patent, including as set forth limitation-by-limitation in the paragraphs above. The customer necessarily infringes the patent when it uses the LenSx for the FDA-approved indicated uses of anterior capsulotomy and laser phacofragmentation during cataract surgery. The LenSx includes separate and distinct modes of operation, the “Capsule” and “Lens” Programs, that perform anterior capsulotomy and laser phacofragmentation in an infringing manner, and for which there is no substantial noninfringing use. Using the LenSx for the FDA-approved indications of anterior capsulotomy and laser phacofragmentation during cataract surgery is not a staple article or commodity of commerce, and does not have a substantial noninfringing use. Upon information and belief, customers have no practical ability to modify or use the LenSx for the indicated uses of anterior capsulotomy and laser phacofragmentation in a way to avoid infringement of the ’084 patent.

134. Alcon has infringed and continues to infringe the '084 patent by supplying or causing to be supplied in or from the United States, without authority, all or a substantial portion of the components of the patented invention, including but not limited to the LenSx (in either assembled or unassembled form), parts and software for the LenSx, and consumables such as the LenSx SoftFit Patient Interface, where such components are uncombined in whole or in part, in such a manner as to actively induce the combination of such components outside of the United States in a manner that would infringe the patent if such combination occurred within the United States, in violation of 35 U.S.C. § 271(f)(1). The components include but are not limited to the hardware and software components that are used to enable and perform the "Capsule" and "Lens" Programs that perform the FDA-approved anterior capsulotomy and laser phacofragmentation in an infringing manner. Alcon's inducing acts include instructions on assembly and use of the LenSx and consumables for use with the LenSx, marketing the LenSx, and providing installation, maintenance, service, and/or repair of the LenSx. Alcon has stated that the "LenSx® Laser requires use of proprietary sterile disposable Patient Interfaces." Alcon has further stated "[t]he consumables used in conjunction with ALCON® instrument products constitute a complete surgical system." Additionally, upon information and belief, Alcon publishes and provides product documentation and educational materials that instruct and encourage its customers to use the LenSx for

its FDA-approved indications and in an infringing manner, including providing the information relevant to each of the claim limitations that is referenced and/or quoted in the paragraphs above, with knowledge and/or with willful blindness that the induced acts constitute patent infringement.

135. Alcon has infringed and continues to infringe the '084 patent by supplying or causing to be supplied in or from the United States, without authority, at least one component of the patented invention, including but not limited to the LenSx (in either assembled or unassembled form), and parts and software for the LenSx, that is especially made or especially adapted for use in the invention and not a staple article or commodity of commerce suitable for substantial noninfringing use, where such component is uncombined in whole or in part, knowing that such component is so made or adapted and intending that such component(s) will be combined outside of the United States in a manner that infringe the patent if such combination occurred within the United States, in violation of 35 U.S.C. § 271(f)(2). The components include but are not limited to the hardware and software components that are used to enable and perform the "Capsule" and "Lens" Programs that perform the FDA-approved anterior capsulotomy and laser phacofragmentation in an infringing manner, including as set forth limitation-by-limitation in the paragraphs above, and for which there are no substantial noninfringing uses. Using the LenSx for the FDA-approved indicated uses of anterior capsulotomy and laser

phacofragmentation during cataract surgery is not a staple article or commodity of commerce, and does not have a substantial noninfringing use. Upon information and belief, customers have no practical ability to modify or use the LenSx or the components thereto for the indicated uses of anterior capsulotomy and laser phacofragmentation in a way to avoid infringement of the '084 patent.

136. Alcon is not licensed under the '084 patent.

137. The marking requirement of 35 U.S.C. § 287(a) has been satisfied through J&J Vision's marking of the Catalys® Precision Laser System.

138. J&J Vision has been damaged and will continue to be damaged by Alcon's infringement of the '084 patent.

139. J&J Vision has suffered and will continue to suffer irreparable harm unless and until Alcon's infringing activities are enjoined by this Court. J&J Vision does not have an adequate remedy at law.

140. Despite Alcon's knowledge of the '084 patent and of its infringing activities, Alcon has continued to manufacture, use, offer to sell, and/or sell the LenSx. Alcon's infringement of the '084 patent has been willful, making this an exceptional case and entitling J&J Vision to an award of increased damages and attorneys' fees.

## COUNT II
## Infringement of the '921 Patent

141. J&J Vision incorporates by reference the allegations set forth in paragraphs 1 through 140 as though fully set forth herein.

142. Alcon has directly and indirectly infringed, and continues to infringe, literally or under the doctrine of equivalents, one or more claims of the '921 patent, by making, using, offering to sell, and/or selling the LenSx and consumables in the United States, and supplying or causing to be supplied the LenSx and consumables from the United States for use abroad, without authority or license, in violation of 35 U.S.C. § 271.

143. For example, the LenSx meets each limitation of claim 1 of the '921 patent, which claims:

> A system for cataract surgery on an eye of a patient, comprising:
>
> > a laser assembly for generating a pulsed laser treatment beam that creates dielectric breakdown in a focal zone of the treatment beam within tissues of the patient's eye so as to effect a cataract surgery procedure;
> >
> > an optical coherence tomography (OCT) 3-Dimensional imaging system configured for imaging tissue of a cataractous crystalline lens of the patient;
> >
> > an optical scanning system configured for positioning the focal zone of the treatment beam to targeted locations of the crystalline lens; and
> >
> > a computer control system operatively coupled to the laser assembly, the imaging system, and the optical scanning system, and programmed to automatically:

a) acquire image data from locations distributed throughout a volume of the cataractous crystalline lens using the imaging system;

b) construct one or more images of the patient's eye tissues from the image data, comprising an image of at least a portion of the crystalline lens;

c) construct an anterior capsulotomy cutting region based on the image data, the capsulotomy cutting region comprising an anterior cutting boundary axially spaced from a posterior cutting boundary so as to define an axially-elongated cutting zone transecting the anterior capsule; and

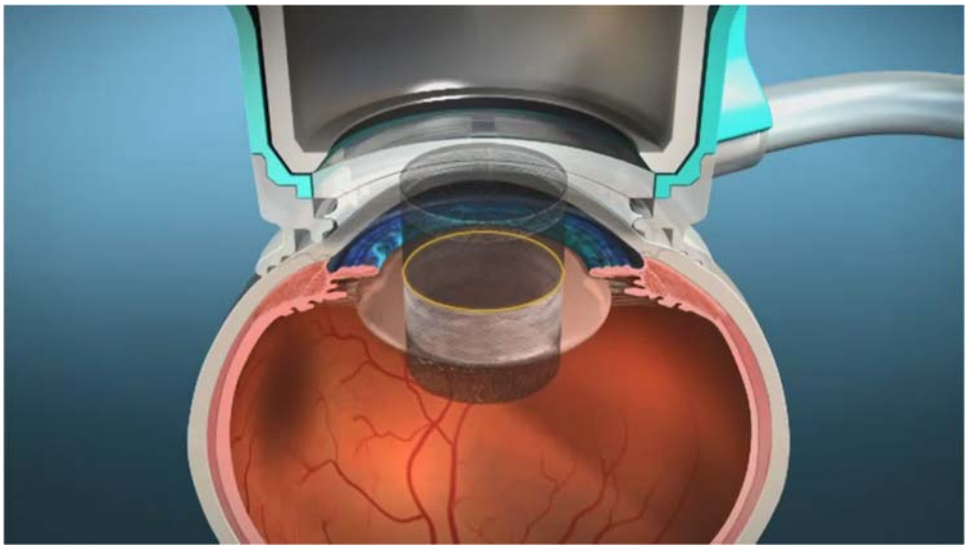
d) operate the optical scanning system and laser assembly to direct a treatment beam in a pattern based on the anterior capsulotomy cutting region so as to create an anterior capsulotomy in the crystalline lens.

144. The LenSx is a system for cataract surgery on an eye of a patient. For example, Alcon has stated that the LenSx is "indicated for use in patients undergoing cataract surgery." Upon information and belief, the LenSx is designed and indicated for use in the creation of an anterior capsulotomy and laser phacofragmentation during cataract surgery.

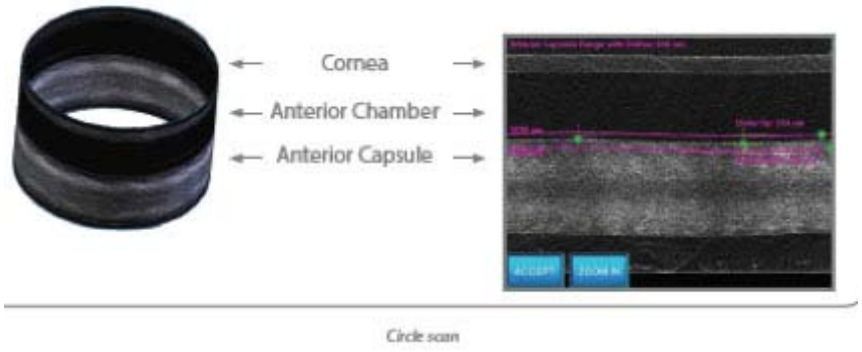
145. The LenSx includes a laser assembly for generating a pulsed laser treatment beam that creates dielectric breakdown in a focal zone of the treatment beam within tissues of the patient's eye so as to effect a cataract surgery procedure. For example, Alcon has stated that the LenSx has "an ophthalmic surgical laser which uses focused femtosecond laser pulses to create incisions and to separate

tissue within the lens capsule, crystalline lens, and the cornea. A femtosecond light pulse[] is focused into a sufficiently small spot in order to achieve photodisruption of the tissue inside the focus. A tiny volume of tissue, a few microns in diameter, is thereby photodisrupted at the laser focus. A computer-controlled scanning system directs the focused laser beam throughout a three-dimensional pattern to produce an incision." Upon information and belief, the photodisruption is achieved through dielectric breakdown within the tissue structures. Upon information and belief, the LenSx is designed and indicated for use in the creation of an anterior capsulotomy and laser phacofragmentation during cataract surgery.

146. The LenSx includes an optical coherence tomography (OCT) 3-Dimensional imaging system configured for imaging tissue of a cataractous crystalline lens of the patient. Upon information and belief, the LenSx uses a 3D spectral domain OCT imaging assembly. Upon information and belief, the LenSx uses its OCT imaging assembly to generate what Alcon refers to as a circle scan. Alcon has illustrated a circle scan as follows:



The circle scan provides an image of the cataractous crystalline lens. For example, the depth profile is shown in the following diagram that Alcon uses to describe the circle scan:



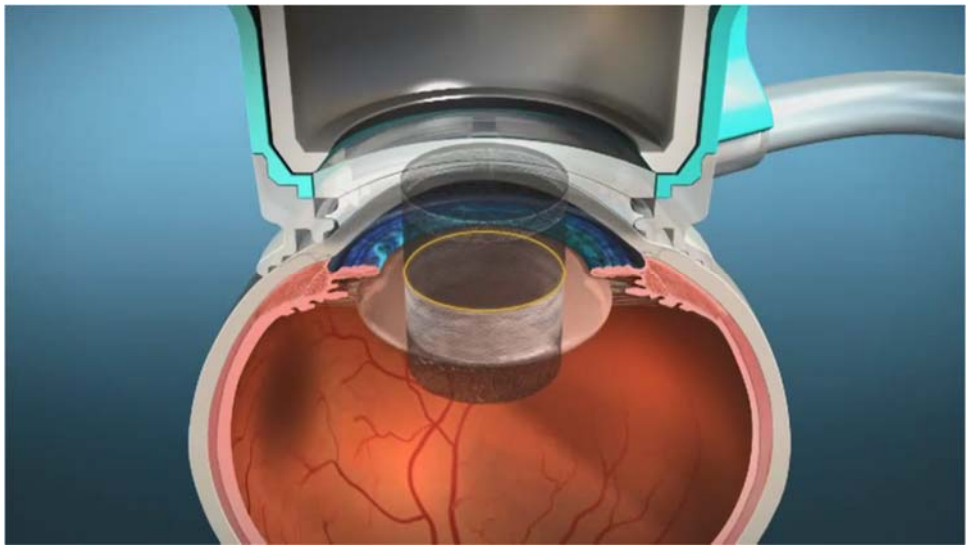

147. The LenSx includes an optical scanning system configured for positioning the focal zone of the treatment beam to targeted locations of the crystalline lens. For example, Alcon has stated that the LenSx has "an ophthalmic surgical laser which uses focused femtosecond laser pulses to create incisions and to separate tissue within the lens capsule, crystalline lens, and the cornea. A femtosecond light pulse[] is focused into a sufficiently small spot in order to achieve

photodisruption of the tissue inside the focus. A tiny volume of tissue, a few microns in diameter, is thereby photodisrupted at the laser focus. A computer-controlled scanning system directs the focused laser beam throughout a three-dimensional pattern to produce an incision."

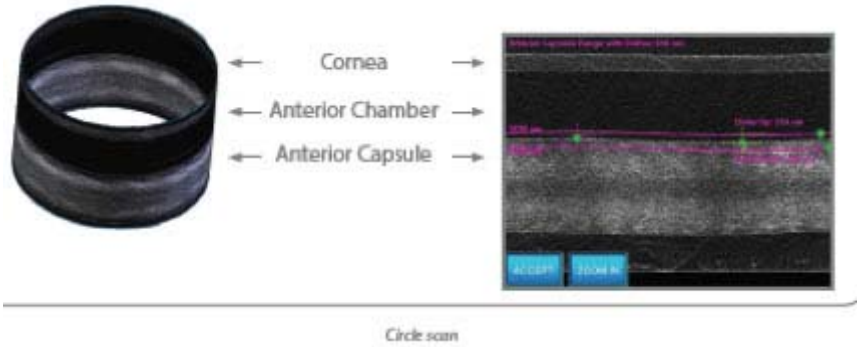
148. The LenSx includes a computer control system operatively coupled to the laser assembly, the imaging system, and the optical scanning system, and programmed to automatically acquire image data from locations distributed throughout a volume of the cataractous crystalline lens using the imaging system. For example, Alcon has stated that in the LenSx, "[a] computer monitors and controls the beam energy, repetition rate, safety shutters, footswitch, laser diagnostics, the position of the scanners and the position of the scanning objective lens." Upon information and belief, the LenSx uses a 3D spectral domain OCT imaging assembly. Alcon has stated that its OCT imaging assembly is "a low power visible wavelength light source that is scanned throughout the transparent structures of the anterior chamber of the eye."

149. The LenSx includes a computer control system operatively coupled to the laser assembly, the imaging system, and the optical scanning system, and programmed to automatically construct one or more images of the patient's eye tissues from the image data, comprising an image of at least a portion of the crystalline lens. For example, Alcon has stated that in the LenSx, "[a] computer

monitors and controls the beam energy, repetition rate, safety shutters, footswitch, laser diagnostics, the position of the scanners and the position of the scanning objective lens." Upon information and belief the LenSx uses its OCT imaging assembly to generate what Alcon refers to as a circle scan. For example, Alcon has illustrated a circle scan as follows:



The circle scan provides an image of at least a portion of the cataractous crystalline lens. For example, Alcon uses the following diagram to describe the circle scan:




150. The LenSx includes a computer control system operatively coupled to the laser assembly, the imaging system, and the optical scanning system, and

programmed to automatically construct an anterior capsulotomy cutting region based on the image data, the capsulotomy cutting region comprising an anterior cutting boundary axially spaced from a posterior cutting boundary so as to define an axially-elongated cutting zone transecting the anterior capsule. For example, Alcon has stated that the LenSx "includes an optical coherence tomography (OCT) based imaging device that assists in localizing specific target locations." Alcon has also stated that "[a]nterior capsulotomy patterns are programmed to cut from at least 100 microns below to 100 microns above the anterior capsule." Alcon has described the anterior capsulotomy pattern as a "treatment pattern" that "begins as a scanned circle located below the depth of the anterior capsule. Once a scanned circle is completed, a new circle is scanned a few microns above the first circle. As each circle is completed, a cylindrical incision is created. The pattern is automatically completed when the anterior extent of the incision is reached." Upon information and belief, a completed anterior capsulotomy transects the anterior capsule.

151. The LenSx includes a computer control system operatively coupled to the laser assembly, the imaging system, and the optical scanning system, and programmed to automatically operate the optical scanning system and laser assembly to direct a treatment beam in a pattern based on the anterior capsulotomy cutting region so as to create an anterior capsulotomy in the crystalline lens. For example, Alcon has stated that in the LenSx, "a computer-controlled scanning

system directs the laser beam throughout a three-dimensional pattern to produce an incision…. The location of the tissue photodisruption is controlled by moving the focus of the laser beam to the desired surgical target location." Upon information and belief, the LenSx is indicated for use in the creation of an anterior capsulotomy. Alcon has stated that "[a]nterior capsulotomy patterns are programmed to cut from at least 100 microns below to 100 microns above the anterior capsule." Alcon has described the anterior capsulotomy pattern as a "treatment pattern" that "begins as a scanned circle located below the depth of the anterior capsule. Once a scanned circle is completed, a new circle is scanned a few microns above the first circle. As each circle is completed, a cylindrical incision is created. The pattern is automatically completed when the anterior extent of the incision is reached."

152. Alcon's manufacture, use, offer to sell, and sale of the LenSx in the United States has infringed and continues to infringe the '921 patent under 35 U.S.C. § 271(a).

153. Alcon's customers in the United States have directly infringed and continue to directly infringe the '921 patent by using the LenSx for its FDA-approved indications (including anterior capsulotomy and laser phacofragmentation).

154. Alcon has actively induced and continues to actively induce infringement of the '921 patent by encouraging its customers to use the LenSx, with

specific intent, knowledge and/or willful blindness that the induced acts constitute patent infringement, in violation of 35 U.S.C. § 271(b). Upon information and belief, Alcon's inducing acts include marketing the LenSx, supporting the ongoing use of the LenSx by providing consumables such as the LenSx SoftFit Patient Interface for use with the LenSx, and providing installation, maintenance, service, and/or repair of the LenSx. Alcon has stated that the "LenSx® Laser requires use of proprietary sterile disposable Patient Interfaces." Alcon has further stated "[t]he consumables used in conjunction with ALCON® instrument products constitute a complete surgical system." Alcon's inducing acts also include providing instructions to use the LenSx for its FDA-approved indications (including anterior capsulotomy and laser phacofragmentation) in an infringing manner, including providing the information relevant to each of the claim limitations that is referenced and/or quoted in the paragraphs above. Additionally, upon information and belief, Alcon has published and provided product documentation and educational materials that instruct and encourage its customers to use the LenSx for its FDA-approved indications in an infringing manner. Moreover, upon information and belief, Alcon warns customers in the Operator's Manual for the LenSx that its "instructions must be observed."

155. Alcon has known of the '921 patent and of its infringement prior to this litigation, and it is further on notice through this lawsuit. Alcon's knowledge of the

'921 patent, together with its knowledge about the design and operation of the LenSx, gave Alcon knowledge that its customers' use of the LenSx constitutes patent infringement, because the language of the '921 patent claims plainly reads upon the LenSx. Alcon's knowledge of infringement is also demonstrated by its receipt of correspondence and infringement charts specifically identifying its infringing acts, the allegations contained in the original complaint, its prior knowledge of the patent and the subject matter claimed, its statements touting the advantages of features that it knew to be patented, and the affirmative measures it took to address its risk of liability for patent infringement. Alcon's specific intent to induce infringement is demonstrated by its continued infringing acts despite this knowledge.

156. Alcon has contributed to and continues to contribute to infringement of the '921 patent by offering to sell and selling the LenSx that its customers use to infringe the patent, in violation of 35 U.S.C. § 271(c). Alcon does so knowing that the LenSx constitutes a material part of the invention, and that it is especially made and especially adapted for use in an infringement of the patent. The LenSx is designed and configured so that the customer will use the system to perform FDA-approved anterior capsulotomy and lens fragmentation in a manner that infringes the patent, including as set forth limitation-by-limitation in the paragraphs above. The customer necessarily infringes the patent when it uses the LenSx for the FDA-approved indicated uses of anterior capsulotomy and laser phacofragmentation

during cataract surgery. The LenSx includes separate and distinct modes of operation, the "Capsule" and "Lens" Programs, that perform anterior capsulotomy and laser phacofragmentation in an infringing manner, and for which there is no substantial noninfringing use. Using the LenSx for the FDA-approved indications of anterior capsulotomy and laser phacofragmentation during cataract surgery is a not staple article or commodity of commerce, and does not have a substantial noninfringing use. Upon information and belief, customers have no practical ability to modify or use the LenSx for the indicated uses of anterior capsulotomy and laser phacofragmentation in a way to avoid infringement of the '921 patent.

157. Alcon has infringed and continues to infringe the '921 patent by supplying or causing to be supplied in or from the United States, without authority, all or a substantial portion of the components of the patented invention, including but not limited to the LenSx (in either assembled or unassembled form), parts and software of the LenSx, and consumables such as the LenSx SoftFit Patient Interface, where such components are uncombined in whole or in part, in such a manner as to actively induce the combination of such components outside of the United States in a manner that would infringe the patent if such combination occurred within the United States, in violation of 35 U.S.C. § 271(f)(1). The components include but are not limited to the hardware and software components that are used to enable and perform the "Capsule" and "Lens" Programs that perform the FDA-approved

anterior capsulotomy and laser phacofragmentation in an infringing manner. Alcon's inducing acts include instructions on assembly and use of the LenSx and consumables for use with the LenSx, marketing the LenSx, and providing installation, maintenance, service, and/or repair of the LenSx. Alcon has stated that the "LenSx® Laser requires use of proprietary sterile disposable Patient Interfaces." Alcon has further stated "[t]he consumables used in conjunction with ALCON® instrument products constitute a complete surgical system." Additionally, upon information and belief, Alcon publishes and provides product documentation and educational materials that instruct and encourage its customers to use the LenSx for its FDA-approved indications and in an infringing manner, including providing the information relevant to each of the claim limitations that is referenced and/or quoted in the paragraphs above, with knowledge and/or with willful blindness that the induced acts constitute patent infringement.

158. Alcon has infringed and continues to infringe the '921 patent by supplying or causing to be supplied in or from the United States, without authority, at least one component of the patented invention, including but not limited to the LenSx (in either assembled or unassembled form), and parts and software for the LenSx, that is especially made or especially adapted for use in the invention and not a staple article or commodity of commerce suitable for substantial noninfringing use, where such component is uncombined in whole or in part, knowing that such

component is so made or adapted and intending that such component(s) will be combined outside of the United States in a manner that infringe the patent if such combination occurred within the United States, in violation of 35 U.S.C. § 271(f)(2). The components include but are not limited to the hardware and software components that are used to enable and perform the "Capsule" and "Lens" Programs that perform the FDA-approved anterior capsulotomy and laser phacofragmentation in an infringing manner, including as set forth limitation-by-limitation in the paragraphs above, and for which there are no substantial noninfringing uses. Using the LenSx for the FDA-approved indicated uses of anterior capsulotomy and laser phacofragmentation during cataract surgery is not a staple article or commodity of commerce, and does not have a substantial noninfringing use. Upon information and belief, customers have no practical ability to modify or use the LenSx or the components thereto for the indicated uses of anterior capsulotomy and laser phacofragmentation in a way to avoid infringement of the '921 patent.

159. Alcon is not licensed under the '921 patent.

160. The marking requirement of 35 U.S.C. § 287(a) has been satisfied through J&J Vision's marking of the Catalys® Precision Laser System.

161. J&J Vision has been damaged and will continue to be damaged by Alcon's infringement of the '921 patent.

162. J&J Vision has suffered and will continue to suffer irreparable harm unless and until Alcon's infringing activities are enjoined by this Court. J&J Vision does not have an adequate remedy at law.

163. Despite Alcon's knowledge of the '921 patent and of its infringing activities, Alcon has continued to manufacture, use, offer to sell, and/or sell the LenSx. Alcon's infringement of the '921 patent has been willful, making this an exceptional case and entitling J&J Vision to an award of increased damages and attorneys' fees.

## COUNT III
## Infringement of the '497 Patent

164. J&J Vision incorporates by reference the allegations set forth in paragraphs 1 through 163 as though fully set forth herein.

165. Alcon has directly and indirectly infringed, and continues to infringe, literally or under the doctrine of equivalents, one or more claims of the '497 patent, by making, using, offering to sell, and/or selling the LenSx and consumables in the United States, without authority or license, in violation of 35 U.S.C. § 271.

166. For example, the LenSx meets each limitation of at least claim 1 of the '497 patent, which claims:

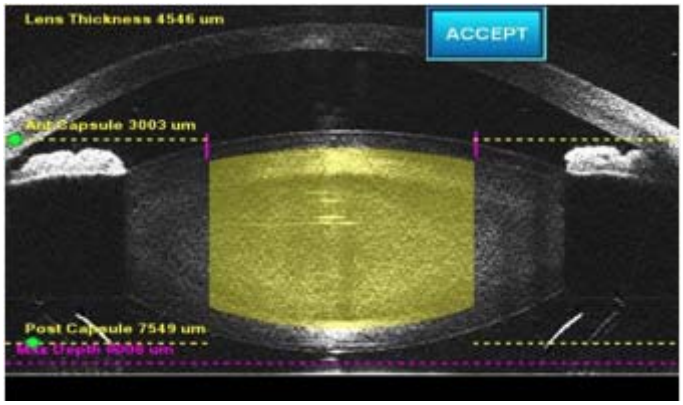
> A method of making an incision in eye tissue during a cataract surgical procedure, the method comprising:
>
> > operating an imaging system, coupled to an electronics control system comprising a computer, so as to acquire image data from

> locations distributed throughout a volume of a crystalline lens of a patient and construct one or more images of the patient's eye tissues from the image data, wherein the one or more images include an image of at least a portion of the crystalline lens;
>
> identifying, using the control system, a cutting region based on the image data, the cutting region being at least partially defined by an anterior cutting boundary and a posterior cutting boundary and including a portion of the crystalline lens;
>
> generating a beam of light using a pulsed laser system guided by the control system so as to scan the beam in a pattern within the cutting region and segment the crystalline lens into a plurality of pieces for subsequent removal, the segmentation of the crystalline lens including:
>
> > focusing the beam at a first focal point located at a first depth in the eye tissue;
> >
> > scanning the beam on the eye while focused at the first depth so as to create an incision pattern within the cutting region at the first depth;
> >
> > focusing the beam at a second focal point located at a second depth in the eye tissue different than the first depth; and
> >
> > scanning the beam on the eye while focused at the second depth so as to create an incision pattern within the cutting region at the second depth.

167. The LenSx practices a method of making an incision in eye tissue during a cataract surgical procedure. Upon information and belief, the LenSx is designed and indicated for use in the creation of an anterior capsulotomy and laser phacofragmentation during cataract surgery.

168. The LenSx operates an imaging system, coupled to an electronics control system comprising a computer, so as to acquire image data from locations

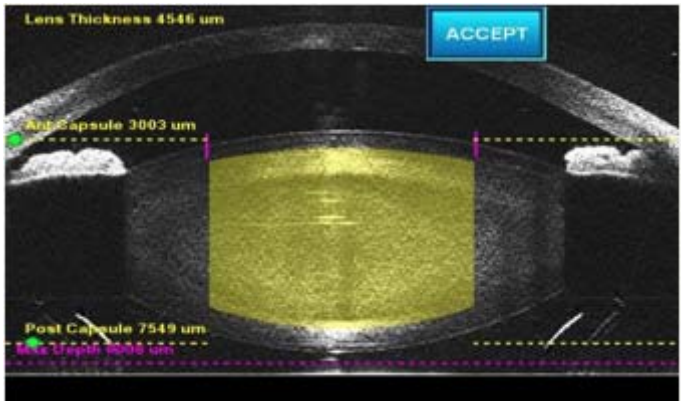
distributed throughout a volume of a crystalline lens of a patient and construct one or more images of the patient's eye tissues from the image data, wherein the one or more images include an image of at least a portion of the crystalline lens. For example, Alcon has stated that in the LenSx, "[a] computer monitors and controls the beam energy, repetition rate, safety shutters, footswitch, laser diagnostics, the position of the scanners and the position of the scanning objective lens." Upon information and belief, the LenSx uses a 3D spectral domain OCT imaging assembly. Alcon has stated that its OCT imaging assembly is "a low power visible wavelength light source that is scanned throughout the transparent structures of the anterior chamber of the eye." For example, upon information and belief the LenSx uses its OCT imaging assembly to generate what Alcon refers to as a line scan. For example, Alcon has shown an image of a line scan as follows:




The line scan provides an image of at least a portion of the crystalline lens.

169. The LenSx identifies, using the control system, a cutting region based on the image data, the cutting region being at least partially defined by an anterior

cutting boundary and a posterior cutting boundary and including a portion of the crystalline lens. For example, Alcon has stated that the LenSx "includes an optical coherence tomography (OCT) based imaging device that assists in localizing specific target locations." For example, Alcon has shown an image of the target locations as follows:




Alcon has stated that "[t]he Lens treatment volume is represented by a yellow semi-transparent solid. The upper arc of the solid matches the programmed Anterior Lens Curvature and the lower arc corresponds to the programmed Posterior Lens Curvature." Upon information and belief the treatment volume includes at least a portion of the crystalline lens.

170. The LenSx generates a beam of light using a pulsed laser system guided by the control system so as to scan the beam in a pattern within the cutting region and segment the crystalline lens into a plurality of pieces for subsequent removal, the segmentation of the crystalline lens including focusing the beam at a first focal point located at a first depth in the eye tissue. For example, Alcon has stated that the

LenSx has "an ophthalmic surgical laser which uses focused femtosecond laser pulses to create incisions and to separate tissue within the lens capsule, crystalline lens, and the cornea." Alcon has also stated that in the LenSx, "[a] computer monitors and controls the beam energy, repetition rate, safety shutters, footswitch, laser diagnostics, the position of the scanners and the position of the scanning objective lens." Alcon has stated that the resulting "Lens Pattern is used to perform phacofragmentation of the crystalline lens. Lens Patterns may be specified as Chop, Cylinder or combined Chop and Cylinder patterns." Alcon has also stated that these "[l]ens phacofragmentation patterns are programmed to cut from at least 500 microns above the posterior capsule to at least 500 microns below the anterior capsule." Upon information and belief, phacofragmentation segments the lens into a plurality of pieces for subsequent removal. Alcon has stated that the phacofragmentation "treatment pattern begins at the programmed posterior depth."

171. The LenSx generates a beam of light using a pulsed laser system guided by the control system so as to scan the beam in a pattern within the cutting region and segment the crystalline lens into a plurality of pieces for subsequent removal, the segmentation of the crystalline lens including scanning the beam on the eye while focused at the first depth so as to create an incision pattern within the cutting region at the first depth. For example, Alcon has stated that the phacofragmentation

"treatment pattern begins at the programmed posterior depth as an initial x-shaped scan is complete."

172. The LenSx generates a beam of light using a pulsed laser system guided by the control system so as to scan the beam in a pattern within the cutting region and segment the crystalline lens into a plurality of pieces for subsequent removal, the segmentation of the crystalline lens including focusing the beam at the second focal point located at a second depth in the eye tissue different than the first depth. For example, Alcon has stated that the incision of the treatment pattern at the programmed posterior depth is "followed by successive x-shaped scans created a few microns apart." Alcon has also stated that these "cuts proceed from the deepest point and move anteriorly, ending below the anterior capsule."

173. The LenSx generates a beam of light using a pulsed laser system guided by the control system so as to scan the beam in a pattern within the cutting region and segment the crystalline lens into a plurality of pieces for subsequent removal, the segmentation of the crystalline lens including scanning the beam on the eye while focused at the second depth so as to create an incision pattern within the cutting region at the second depth. For example, Alcon has stated that the incision of the treatment pattern at the programmed posterior depth is "followed by successive x-shaped scans created a few microns apart." Alcon has also stated that these "cuts

proceed from the deepest point and move anteriorly, ending below the anterior capsule."

174. Alcon's use of the LenSx in the United States has infringed and continues to infringe the '497 patent under 35 U.S.C. § 271(a).

175. Alcon's customers in the United States have directly infringed and continue to directly infringe the '497 patent by using the LenSx for its FDA-approved indications (including laser phacofragmentation).

176. Alcon has actively induced and continues to actively induce infringement of the '497 patent by encouraging its customers to use the LenSx, with specific intent, knowledge and/or willful blindness that the induced acts constitute patent infringement, in violation of 35 U.S.C. § 271(b). Upon information and belief, Alcon's inducing acts include marketing the LenSx, supporting the ongoing use of the LenSx by providing consumables such as the LenSx SoftFit Patient Interface for use with the LenSx, and providing installation, maintenance, service, and/or repair of the LenSx. Alcon has stated that the "LenSx® Laser requires use of proprietary sterile disposable Patient Interfaces." Alcon has further stated "[t]he consumables used in conjunction with ALCON® instrument products constitute a complete surgical system." Alcon's inducing acts also include providing instructions to use the LenSx for its FDA-approved indications (including laser phacofragmentation) in an infringing manner, including providing the information relevant to each of the

claim limitations that is referenced and/or quoted in the paragraphs above. Additionally, upon information and belief, Alcon has published and provided product documentation and educational materials that instruct and encourage its customers to use the LenSx for its FDA-approved indications in an infringing manner, with knowledge and/or with willful blindness that the induced acts constitute patent infringement. Moreover, upon information and belief, Alcon warns customers in the Operator's Manual for the LenSx that its "instructions must be observed."

177. Alcon has known of the '497 patent and of its infringement prior to this litigation, and it is further on notice through this lawsuit. Alcon's knowledge of the '497 patent, together with its knowledge about the design and operation of the LenSx, gave Alcon knowledge that its customers' use of the LenSx constitutes patent infringement, because the language of the '497 patent claims plainly reads upon the LenSx. Alcon's knowledge of infringement is also demonstrated by its receipt of correspondence and infringement charts specifically identifying its infringing acts, the allegations contained in the original complaint, its prior knowledge of the patent and the subject matter claimed, its statements touting the advantages of features that it knew to be patented, and the affirmative measures it took to address its risk of liability for patent infringement. Alcon's specific intent to induce infringement is demonstrated by its continued infringing acts despite this knowledge.

178. Alcon has contributed to and continues to contribute to infringement of the '497 patent by offering to sell and selling the LenSx that its customers use to infringe the patent, in violation of 35 U.S.C. § 271(c). Alcon does so knowing that the LenSx constitutes a material part of the invention, and that it is especially made and especially adapted for use in an infringement of the patent. The LenSx is designed and configured so that the customer will use the system to perform FDA-approved lens fragmentation in a manner that infringes the patent, including as set forth limitation-by-limitation in the paragraphs above. The customer necessarily infringes the patent when it uses the LenSx for the FDA-approved indicated use of laser phacofragmentation during cataract surgery. The LenSx includes a separate and distinct mode of operation, the "Lens" Program, that performs laser phacofragmentation in an infringing manner, and for which there is no substantial noninfringing use. Using the LenSx for the FDA-approved indication of laser phacofragmentation during cataract surgery is not a staple article or commodity of commerce, and does not have a substantial noninfringing use. Upon information and belief, customers have no practical ability to modify or use the LenSx for the indicated use of laser phacofragmentation in a way to avoid infringement of the '497 patent.

179. Alcon is not licensed under the '497 patent.

180. J&J Vision has been damaged and will continue to be damaged by Alcon's infringement of the '497 patent.

181. J&J Vision has suffered and will continue to suffer irreparable harm unless and until Alcon's infringing activities are enjoined by this Court. J&J Vision does not have an adequate remedy at law.

182. Despite Alcon's knowledge of the '497 patent and of its infringing activities, Alcon has continued to manufacture, use, offer to sell, and/or sell the LenSx. Alcon's infringement of the '497 patent has been willful, making this an exceptional case and entitling J&J Vision to an award of increased damages and attorneys' fees.

## COUNT IV
## Infringement of the '724 Patent

183. J&J Vision incorporates by reference the allegations set forth in paragraphs 1 through 182 as though fully set forth herein.

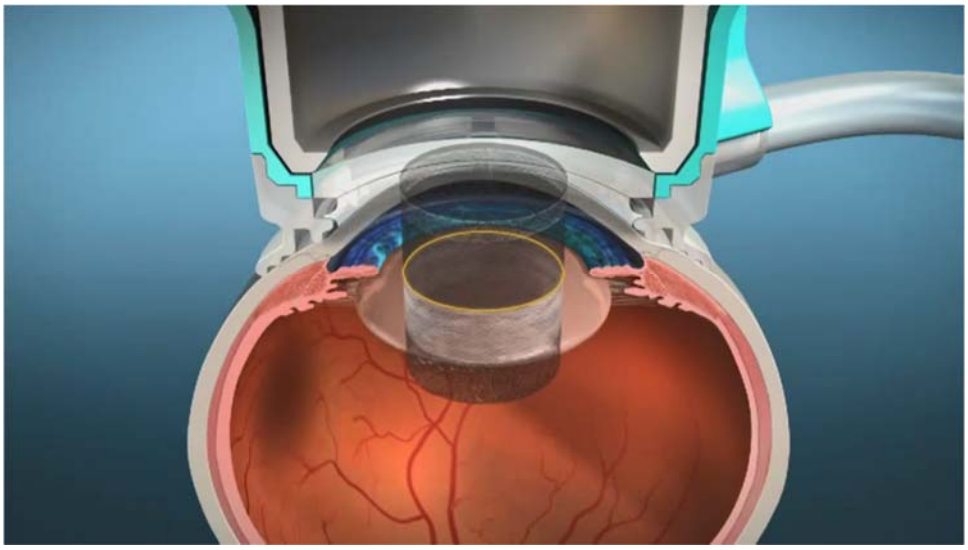
184. Alcon has directly and indirectly infringed, and continues to infringe, literally or under the doctrine of equivalents, one or more claims of the '724 patent, by making, using, offering to sell, and/or selling the LenSx and consumables in the United States, without authority or license, in violation of 35 U.S.C. § 271.

185. For example, the LenSx meets each limitation of at least Claim 1 of the '724 patent, which claims:

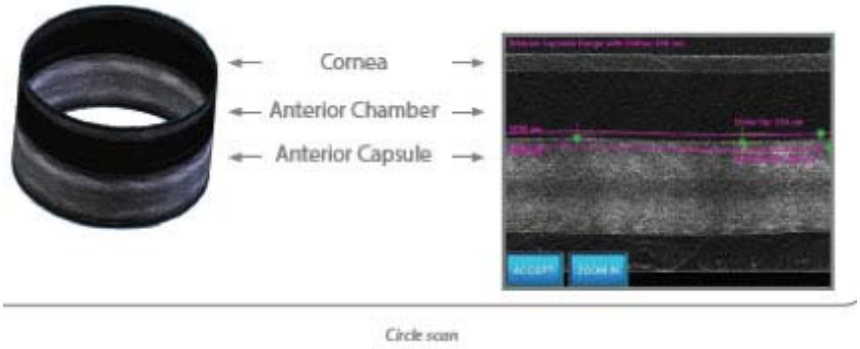
> A method for laser cataract surgery that protects the retina of the eye from laser exposure, comprising:
>
> a. generating, using a computer, an image of at least a portion of a crystalline lens of the eye based on detecting remitted light from locations distributed throughout a volume of the crystalline lens;
>
> b. processing data including the image data so as to determine a targeted treatment region in the lens of the eye, wherein the targeted treatment region comprises an axially-elongated cutting zone transecting the anterior capsule and does not transect the posterior capsule of the lens;
>
> c. directing a laser beam, under computer guided control, in a first pattern to photodisrupt at least a portion of lens tissue of the eye to create a light scattering region; and
>
> d. subsequently directing the laser beam, under computer guided control, in a second pattern in lens tissue anterior to the light scattering region so as to photodisrupt at least a portion of the targeted region, thereby effecting patterned laser cutting of lens tissue for subsequent removal of pieces or segments of lens tissue.

186. The LenSx practices a method for laser cataract surgery that protects the retina of the eye from laser exposure. For example, Alcon has stated that the LenSx is designed and "indicated for use in patients undergoing cataract surgery … the LenSx® Laser creates incisions through tightly focused femtosecond laser pulses that cut tissue with micron-scale precision." Upon information and belief, these laser pulses are directed in a manner to avoid damage to the retina of the eye.

187. The LenSx generates using a computer, an image of at least a portion of a crystalline lens of the eye based on detecting remitted light from locations distributed throughout a volume of the crystalline lens. Upon information and belief, the LenSx uses its OCT imaging assembly to generate what Alcon refers to as a circle scan. For example, Alcon has illustrated a circle scan as follows:



The circle scan provides an image at least a portion of the crystalline lens. For example, Alcon has shown an image of a circle scan as follows:




Upon information and belief, the LenSx uses a 3D spectral domain OCT imaging assembly to generate the circle scan. For example, Alcon has stated that its OCT

imaging assembly is "a low power visible wavelength light source that is scanned throughout the transparent structures of the anterior chamber of the eye."

188. The LenSx processes data including the image data so as to determine a targeted treatment region in the lens of the eye, wherein the targeted treatment region comprises an axially-elongated cutting zone transecting the anterior capsule and does not transect the posterior capsule of the lens. For example, Alcon has stated that the LenSx "includes an optical coherence tomography (OCT) based imaging device that assists in localizing specific target locations." Additionally, "[t]he treatment pattern begins as a scanned circle located below the depth of the anterior capsule. Once a scanned circle is completed, a new circle is scanned a few microns above the first circle. As each circle is completed, a cylindrical incision is created." Upon information and belief, the targeted treatment region comprises an axially-elongated cutting zone transecting the anterior capsule and does not transect the posterior capsule of the lens.

189. The LenSx directs a laser beam, under computer guided control, in a first pattern to photodisrupt at least a portion of the lens tissue of the eye to create a light scattering region. For example, Alcon has stated that "[t]he LenSx® Laser System uses focused femtosecond laser pulses … and separates tissue in the … crystalline lens…. Individual photodisruption locations are controlled by repeatedly repositioning the laser focus. The light pulse is focused into a sufficiently small spot

in order to achieve photodisruption of the tissue inside the focus. A tiny volume of tissue, a few microns in diameter, is photodisrupted at the laser focus…. The location of the tissue photodisruption is controlled by moving the focus of the laser beam to the desired surgical target location. A computer-controlled scanning system directs the laser beam throughout a three-dimensional pattern to produce an incision."

190. The LenSx subsequently directs the laser beam, under computer guided control, in a second pattern in lens tissue anterior to the light scattering region so as to photodisrupt at least a portion of the targeted region, thereby effecting patterned laser cutting of lens tissue for subsequent removal of pieces or segments of lens tissue. For example, Alcon has stated that the phacofragmentation "treatment pattern begins at the programmed posterior depth as an initial x-shaped scan is complete, followed by successive x-shaped scans created a few microns apart. As each scan is completed, the lateral extent of the scans is adjusted to fill-in the elliptically shaped volume. The result is two or more vertically oriented, elliptically shaped planes that intersect at the lens center. As an alternative, a number of cylindrical shells may be generated in lieu of the planes or in combination with the planes. The pattern is automatically completed when the programmed anterior depth is reached." Upon information and belief, phacofragmentation segments the lens into a plurality of pieces for subsequent removal.

191. Alcon's use of the LenSx in the United States has infringed and continues to infringe the '724 patent under 35 U.S.C. § 271(a).

192. Alcon's customers in the United States have directly infringed and continue to directly infringe the '724 patent by using the LenSx for its FDA-approved indications (including anterior capsulotomy and laser phacofragmentation).

193. Alcon has actively induced and continues to actively induce infringement of the '724 patent by encouraging its customers to use the LenSx, with specific intent, knowledge and/or willful blindness that the induced acts constitute patent infringement, in violation of 35 U.S.C. § 271(b). Upon information and belief, Alcon's inducing acts include marketing the LenSx, supporting the ongoing use of the LenSx by providing consumables such as the LenSx SoftFit Patient Interface for use with the LenSx, and providing installation, maintenance, service, and/or repair of the LenSx. Alcon has stated that the "LenSx® Laser requires use of proprietary sterile disposable Patient Interfaces." Alcon has further stated "[t]he consumables used in conjunction with ALCON® instrument products constitute a complete surgical system." Alcon's inducing acts also include providing instructions to use the LenSx for its FDA-approved indications (including anterior capsulotomy and laser phacofragmentation) in an infringing manner, including providing the information relevant to each of the claim limitations that is referenced and/or quoted

in the paragraphs above. Additionally, upon information and belief, Alcon has published and provided product documentation and educational materials that instruct and encourage its customers to use the LenSx for its FDA-approved indications in an infringing manner, with knowledge and/or with willful blindness that the induced acts constitute patent infringement. Moreover, upon information and belief, Alcon warns customers in the Operator's Manual for the LenSx that its "instructions must be observed."

194. Alcon has known of the '724 patent and of its infringement prior to this litigation, and it is further on notice through this lawsuit. Alcon's knowledge of the '724 patent, together with its knowledge about the design and operation of the LenSx, gave Alcon knowledge that its customers' use of the LenSx constitutes patent infringement, because the language of the '724 patent claims plainly reads upon the LenSx. Alcon's knowledge of infringement is also demonstrated by its receipt of correspondence and infringement charts specifically identifying its infringing acts, the allegations contained in the original complaint, its prior knowledge of the patent and the subject matter claimed, its statements touting the advantages of features that it knew to be patented, and the affirmative measures it took to address its risk of liability for patent infringement. Alcon's specific intent to induce infringement is demonstrated by its continued infringing acts despite this knowledge.

195. Alcon has contributed to and continues to contribute to infringement of the '724 patent by offering to sell and selling the LenSx that its customers use to infringe the patent, in violation of 35 U.S.C. § 271(c). Alcon does so knowing that the LenSx constitutes a material part of the invention, and that it is especially made and especially adapted for use in an infringement of the patent. The LenSx is designed and configured so that the customer will use the system to perform FDA-approved anterior capsulotomy and lens fragmentation in a manner that infringes the patent, including as set forth limitation-by-limitation in the paragraphs above. The customer necessarily infringes the patent when it uses the LenSx for the FDA-approved indicated uses of anterior capsulotomy and laser phacofragmentation during cataract surgery. The LenSx includes separate and distinct modes of operation, the "Capsule" and "Lens" Programs, that perform anterior capsulotomy and laser phacofragmentation in an infringing manner, and for which is no substantial noninfringing use. Using the LenSx for the FDA-approved indications of anterior capsulotomy and laser phacofragmentation during cataract surgery is a not a staple article or commodity of commerce, and does not have a substantial noninfringing use. Upon information and belief, customers have no practical ability to modify or use the LenSx for the indicate uses of anterior capsulotomy and laser phacofragmentation in a way to avoid infringement of the '724 patent.

196. Alcon is not licensed under the '724 patent.

197. J&J Vision has been damaged and will continue to be damaged by Alcon's infringement of the '724 patent.

198. J&J Vision has suffered and will continue to suffer irreparable harm unless and until Alcon's infringing activities are enjoined by this Court. J&J Vision does not have an adequate remedy at law.

199. Despite Alcon's knowledge of the '724 patent and of its infringing activities, Alcon has continued to manufacture, use, offer to sell, and/or sell the LenSx. Alcon's infringement of the '724 patent has been willful, making this an exceptional case and entitling J&J Vision to an award of increased damages and attorneys' fees.

## COUNT V
## Infringement of the '001 Patent

200. J&J Vision incorporates by reference the allegations set forth in paragraphs 1 through 199 as though fully set forth herein.

201. Alcon has directly and indirectly infringed, and continues to infringe, literally or under the doctrine of equivalents, one or more claims of the '001 patent, by making, using, offering to sell, and/or selling the LenSx and consumables in the United States, without authority or license, in violation of 35 U.S.C. § 271.

202. For example, the LenSx meets each limitation of at least claim 1 of the '001 patent, which claims:

A method for cataract surgery on an eye of a patient using a pulsed laser surgical system, comprising:

operating an imaging system so as to acquire image data from locations distributed throughout a volume of a cataractous crystalline lens of the patient and construct one or more images of the patient's eye tissues from the image data, wherein the one or more images comprise an image of at least a portion of the crystalline lens;

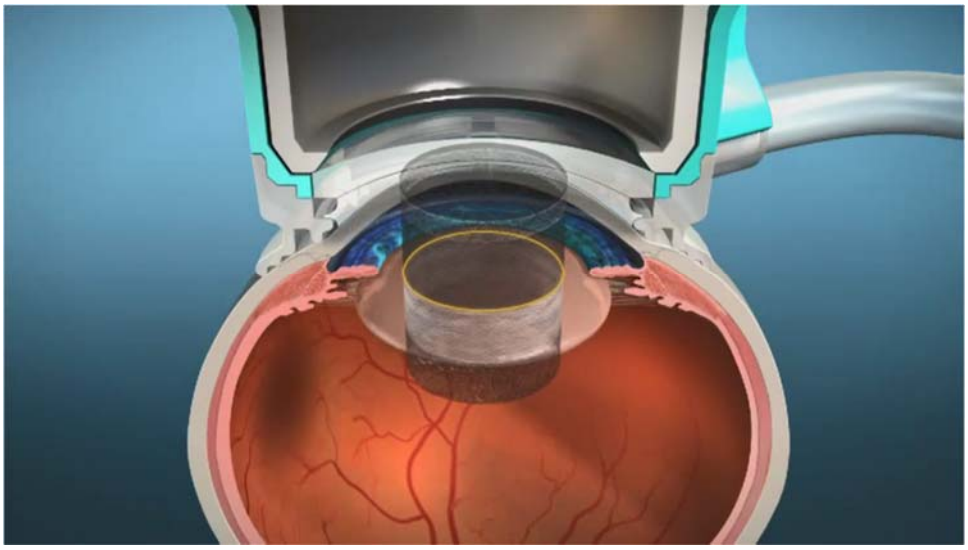
constructing, using a computer system, an anterior capsulotomy cutting region based on the image data, the capsulotomy cutting region comprising an anterior cutting boundary axially spaced from a posterior cutting boundary so as to define an axially-elongated cutting zone transecting the anterior capsule; and

operating the surgical system to direct a pulsed laser treatment beam in a pattern based on the anterior capsulotomy cutting region so as to create an anterior capsulotomy in the crystalline lens.

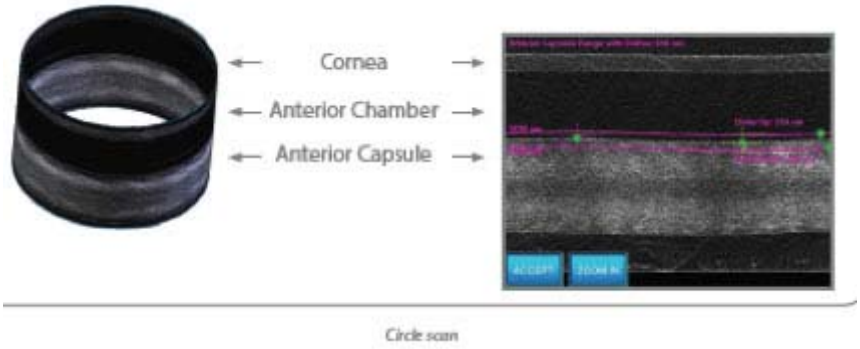
203. The LenSx practices a method for cataract surgery on an eye of a patient using a pulsed laser surgical system. For example, Alcon has stated that "[t]he LenSx® Laser is indicated for use in patients undergoing cataract surgery … The LenSx® Laser creates incisions through tightly focused femtosecond laser pulses that cut tissue with micron-scale precision."

204. The LenSx operates an imaging system so as to acquire image data from locations distributed throughout a volume of a cataractous crystalline lens of the patient and construct one or more images of the patient's eye tissues from the image data, wherein the one or more images comprise an image of at least a portion of the crystalline lens. Upon information and belief, the LenSx uses a 3D spectral domain

OCT imaging assembly. For example, Alcon has stated that its OCT imaging assembly is "a low power visible wavelength light source that is scanned throughout the transparent structures of the anterior chamber of the eye." Upon information and belief, the LenSx uses its OCT imaging assembly to generate what Alcon refers to as a circle scan. Alcon has illustrated a circle scan as follows:



The circle scan provides an image of at least a portion of the cataractous crystalline lens. For example, Alcon has shown an image of a circle scan as follows:




205. The LenSx constructs, using a computer system, an anterior capsulotomy cutting region based on the image data, the capsulotomy cutting region

comprising an anterior cutting boundary axially spaced from a posterior cutting boundary so as to define an axially-elongated cutting zone transecting the anterior capsule. For example, Alcon has stated that the LenSx "includes an optical coherence tomography (OCT) based imaging device that assists in localizing specific target locations." For example, Alcon has stated that in the LenSx, "a computer-controlled scanning system directs the laser beam throughout a three-dimensional pattern to produce an incision…. The location of the tissue photodisruption is controlled by moving the focus of the laser beam to the desired surgical target location." Alcon has stated that "[a]nterior capsulotomy patterns are programmed to cut from at least 100 microns below to 100 microns above the anterior capsule." Alcon has described the anterior capsulotomy pattern as a "treatment pattern" that "begins as a scanned circle located below the depth of the anterior capsule. Once a scanned circle is completed, a new circle is scanned a few microns above the first circle. As each circle is completed, a cylindrical incision is created. The pattern is automatically completed when the anterior extent of the incision is reached." Upon information and belief, a completed anterior capsulotomy transects the anterior capsule.

206. The LenSx operates the surgical system to direct a pulsed laser treatment beam in a pattern based on the anterior capsulotomy cutting region so as to create an anterior capsulotomy in the crystalline lens. For example, Alcon has

stated that in the LenSx, "a computer-controlled scanning system directs the laser beam throughout a three-dimensional pattern to produce an incision…. The location of the tissue photodisruption is controlled by moving the focus of the laser beam to the desired surgical target location." Alcon has also stated that the LenSx has "an ophthalmic surgical laser which uses focused femtosecond laser pulses to create incisions." Alcon has stated that "[t]he treatment pattern begins as a scanned circle located below the depth of the anterior capsule. Once a scanned circle is completed, a new circle is scanned a few microns above the first circle. As each circle is completed, a cylindrical incision is created. The pattern is automatically completed when the anterior extent of the incision is reached." Alcon has also stated that "[t]he Capsule Pattern is used to perform an anterior capsulotomy of the crystalline lens. The anterior capsulotomy is created by scanning a cylindrical shell."

207. Alcon's manufacture, use, offer to sell, and sale of the LenSx in the United States has infringed and continues to infringe the '001 patent under 35 U.S.C. § 271(a).

208. Alcon's customers in the United States have directly infringed and continue to directly infringe the '001 patent by using the LenSx for its FDA-approved indications (including anterior capsulotomy and laser phacofragmentation).

209. Alcon has actively induced and continues to actively induce infringement of the '001 patent by encouraging its customers to use the LenSx, with specific intent, knowledge and/or willful blindness that the induced acts constitute patent infringement, in violation of 35 U.S.C. § 271(b). Upon information and belief, Alcon's inducing acts include marketing the LenSx, supporting the ongoing use of the LenSx by providing consumables such as the LenSx SoftFit Patient Interface for use with the LenSx, and providing installation, maintenance, service, and/or repair of the LenSx. Alcon has stated that the "LenSx® Laser requires use of proprietary sterile disposable Patient Interfaces." Alcon has further stated "[t]he consumables used in conjunction with ALCON® instrument products constitute a complete surgical system." Alcon's inducing acts also include providing instructions to use the LenSx for its FDA-approved indications for use (including anterior capsulotomy and laser phacofragmentation) in an infringing manner, including providing the information relevant to each of the claim limitations that is referenced and/or quoted in the paragraphs above. Additionally, upon information and belief, Alcon has published and provided product documentation and educational materials that instruct and encourage its customers to use the LenSx for its FDA-approved indications in an infringing manner, with knowledge and/or with willful blindness that the induced acts constitute patent infringement. Moreover, upon information

and belief, Alcon warns customers in the Operator's Manual for the LenSx that its "instructions must be observed."

210. Alcon has known of the '001 patent and of its infringement prior to this litigation, and it is further on notice through this lawsuit. Alcon's knowledge of the '001 patent, together with its knowledge about the design and operation of the LenSx, gave Alcon knowledge that its customers' use of the LenSx constitutes patent infringement, because the language of the '001 patent claims plainly reads upon the LenSx. Alcon's knowledge of infringement is also demonstrated by its receipt of correspondence and infringement charts specifically identifying its infringing acts, the allegations contained in the original complaint, its prior knowledge of the patent and the subject matter claimed, its statements touting the advantages of features that it knew to be patented, and the affirmative measures it took to address its risk of liability for patent infringement. Alcon's specific intent to induce infringement is demonstrated by its continued infringing acts despite this knowledge.

211. Alcon has contributed to and continues to contribute to infringement of the '001 patent by offering to sell and selling the LenSx that its customers use to infringe the patent, in violation of 35 U.S.C. § 271(c). Alcon does so knowing that the LenSx constitutes a material part of the invention, and that it is especially made and especially adapted for use in an infringement of the patent. The LenSx is designed and configured so that the customer will use the system to perform FDA-

approved anterior capsulotomy and lens fragmentation in a manner that infringes the patent, including as set forth limitation-by-limitation in the paragraphs above. The customer necessarily infringes the patent when it uses the LenSx for the FDA-approved indicated uses in the creation of an anterior capsulotomy and laser phacofragmentation during cataract surgery. The LenSx includes separate and distinct modes of operation, the "Capsule" and "Lens" Programs, that perform anterior capsulotomy and laser phacofragmentation in an infringing manner, and for which there is no substantial noninfringing use. Using the LenSx for the FDA-approved indications of anterior capsulotomy and laser phacofragmentation during cataract surgery is not a staple article or commodity of commerce, and does not have a substantial noninfringing use. Upon information and belief, customers have no practical ability to modify or use the LenSx for the indicated uses of anterior capsulotomy and laser phacofragmentation in a way to avoid infringement of the '001 patent.

212. Alcon is not licensed under the '001 patent.

213. The marking requirement of 35 U.S.C. § 287(a) has been satisfied through J&J Vision's marking of the Catalys® Precision Laser System.

214. J&J Vision has been damaged and will continue to be damaged by Alcon's infringement of the '001 patent.

215. J&J Vision has suffered and will continue to suffer irreparable harm unless and until Alcon's infringing activities are enjoined by this Court. J&J Vision does not have an adequate remedy at law.

216. Despite Alcon's knowledge of the '001 patent and of its infringing activities, Alcon has continued to manufacture, use, offer to sell, and/or sell the LenSx. Alcon's infringement of the '001 patent has been willful, making this an exceptional case and entitling J&J Vision to an award of increased damages and attorneys' fees.

## COUNT VI
## Infringement of the '415 Patent

217. J&J Vision incorporates by reference the allegations set forth in paragraphs 1 through 216 as though fully set forth herein.

218. Alcon has directly and indirectly infringed, and continues to infringe, literally or under the doctrine of equivalents, one or more claims of the '415 patent, by making, using, offering to sell, and/or selling the LenSx and consumables in the United States, without authority or license, in violation of 35 U.S.C. § 271.

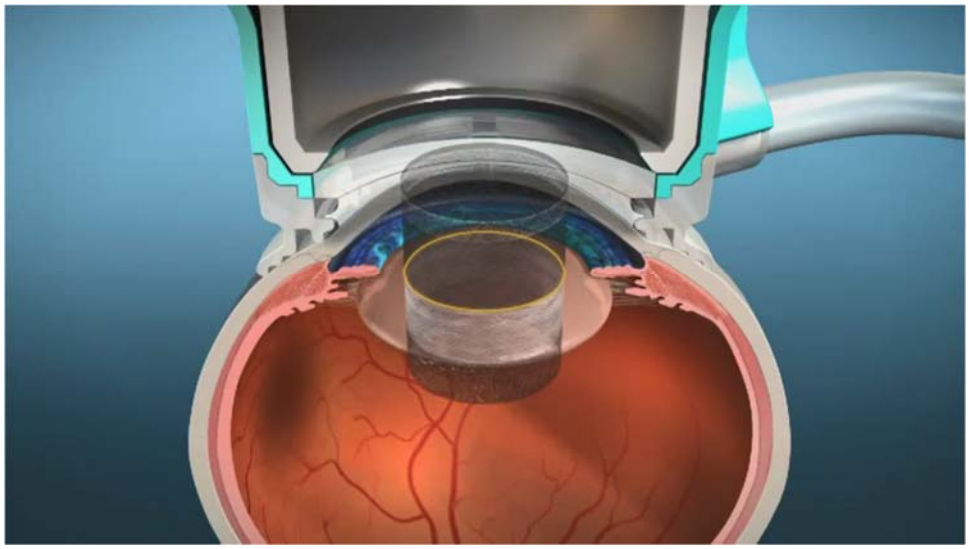
219. For example, the LenSx meets each limitation of at least claim 1 of the '415 patent, which claims:

> A method for incising ocular tissue during a cataract surgical procedure, the method comprising:

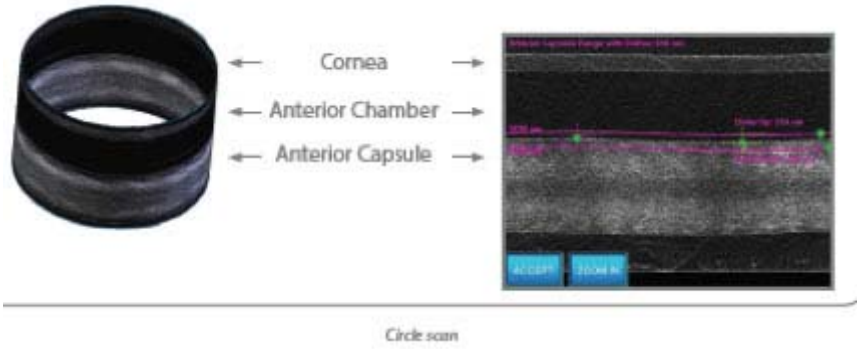
> operating an imaging device to acquire image data of ocular tissue, the image data including lens interior image data for an interior portion of the lens of a patient's eye;
>
> processing the image data via a control system so as to generate an anterior capsulotomy scanning pattern for scanning a focal zone of a laser beam for performing an anterior capsulotomy, the imaging device being operatively coupled to the control system;
>
> generating the laser beam; and
>
> scanning the focal zone of the laser beam in the anterior capsulotomy scanning pattern so as to perform the anterior capsulotomy, wherein positioning of the focal zone is controlled by the control system based on the image data.

220. The LenSx practices a method for incising ocular tissue during a cataract surgical procedure. For example, Alcon has stated that "[t]he LenSx® Laser is indicated for use in patients undergoing cataract surgery … The LenSx® Laser creates incisions through tightly focused femtosecond laser pulses that cut tissue with micron-scale precision."

221. The LenSx operates an imaging device to acquire image data of ocular tissue, the image data including lens interior image data for an interior portion of the lens of a patient's eye. For example, Alcon has stated that "[an OCT] consists of a low power visible wavelength light source that is scanned throughout the transparent structures of the anterior chamber of the eye. Light scattered from ocular structures and surfaces within the eye is analyzed to produce cross sectional images of the eye's anterior segment. Various sectioned images may be produced, including … circle and line scans of the lens and capsule." Alcon has illustrated a circle scan as follows:



The circle scan provides image data for an interior portion of the lens. For example, Alcon has shown an image of a circle scan as follows:




222. The LenSx processes the image data via a control system so as to generate an anterior capsulotomy scanning pattern for scanning a focal zone of a laser beam for performing an anterior capsulotomy, the imaging device being operatively coupled to the control system. For example, Alcon has stated that the

LenSx "includes an optical coherence tomography (OCT) based imaging device that assists in localizing specific target locations." Alcon has also stated that a "[c]ircle scan OCT image of the lens and capsule is displayed [on] the top right area of the Surgical Display. The circle scan is performed along the Capsule Pattern diameter as defined on the video microscope image of the eye." Alcon has also stated that "[t]he Capsule Pattern is used to perform an anterior capsulotomy of the crystalline lens." Alcon has also stated that "[t]he surgical effect is produced by scanning thousands of individual pulses" and the location of those pulses "is controlled by moving the focus of the laser beam to the desired surgical target location. A computer-controlled scanning system directs the laser beam throughout a three-dimensional pattern to produce an incision."

223. The LenSx generates the laser beam. For example, Alcon has stated that "the laser engine uses a conventional amplified laser design in which pulses with sufficient bandwidth are generated by an oscillator, amplified to higher energies, and finally compressed in time to femtosecond pulse duration…. The beam of compressed pulses from the laser then enters the energy monitoring assembly."

224. The LenSx scans the focal zone of the laser beam in the anterior capsulotomy scanning pattern so as to perform the anterior capsulotomy, wherein positioning of the focal zone is controlled by the control system based on the image data. For example, Alcon has stated that "[a] femtosecond light pulse[] is focused

into a sufficiently small spot in order to achieve photodisruption of the tissue inside the focus. A tiny volume of tissue, a few microns in diameter, is thereby photodisrupted at the laser focus. A computer-controlled scanning system directs the focused laser beam throughout a three-dimensional pattern to produce an incision. … The location of the tissue photodisruption is controlled by moving the focus of the laser beam to the desired surgical target location." Alcon has also stated that a "[c]ircle scan OCT image of the lens and capsule is displayed [on] the top right area of the Surgical Display. The circle scan is performed along the Capsule Pattern diameter as defined on the video microscope image of the eye." Alcon has also stated that "[t]he Capsule Pattern is used to perform an anterior capsulotomy of the crystalline lens." Alcon has stated that "[a]nterior capsulotomy patterns are programmed to cut from at least 100 microns below to 100 microns above the anterior capsule." Alcon has described the anterior capsulotomy pattern as a "treatment pattern" that "begins as a scanned circle located below the depth of the anterior capsule. Once a scanned circle is completed, a new circle is scanned a few microns above the first circle. As each circle is completed, a cylindrical incision is created. The pattern is automatically completed when the anterior extent of the incision is reached."

225. Alcon's use of the LenSx in the United States has infringed and continues to infringe the '415 patent under 35 U.S.C. § 271(a).

226. Alcon's customers in the United States have directly infringed and continue to directly infringe the '415 patent by using the LenSx for its FDA-approved indications (including anterior capsulotomy).

227. Alcon has actively induced and continues to actively induce infringement of the '415 patent by encouraging its customers to use the LenSx, with specific intent, knowledge and/or willful blindness that the induced acts constitute patent infringement, in violation of 35 U.S.C. § 271(b). Upon information and belief, Alcon's inducing acts include marketing the LenSx, supporting the ongoing use of the LenSx by providing consumables such as the LenSx SoftFit Patient Interface for use with the LenSx, and providing installation, maintenance, service, and/or repair of the LenSx. Alcon has stated that the "LenSx® Laser requires use of proprietary sterile disposable Patient Interfaces." Alcon has further stated "[t]he consumables used in conjunction with ALCON® instrument products constitute a complete surgical system." Alcon's inducing acts also include providing instructions to use the LenSx for its FDA-approved indications (including anterior capsulotomy) in an infringing manner, including providing the information relevant to each of the claim limitations that is referenced and/or quoted in the paragraphs above. Additionally, upon information and belief, Alcon has published and provided product documentation and educational materials that instruct and encourage its customers to use the LenSx for its FDA-approved indications in an infringing manner, with

knowledge and/or with willful blindness that the induced acts constitute patent infringement. Moreover, upon information and belief, Alcon warns customers in the Operator's Manual for the LenSx that its "instructions must be observed."

228. Alcon has known of the '415 patent and of its infringement prior to this litigation, and it is further on notice through this lawsuit. Alcon's knowledge of the '415 patent, together with its knowledge about the design and operation of the LenSx, gave Alcon knowledge that its customers' use of the LenSx constitutes patent infringement, because the language of the '415 patent claims plainly reads upon the LenSx. Alcon's knowledge of infringement is also demonstrated by its receipt of correspondence and infringement charts specifically identifying its infringing acts, the allegations contained in the original complaint, its prior knowledge of the patent and the subject matter claimed, its statements touting the advantages of features that it knew to be patented, and the affirmative measures it took to address its risk of liability for patent infringement. Alcon's specific intent to induce infringement is demonstrated by its continued infringing acts despite this knowledge.

229. Alcon has contributed to and continues to contribute to infringement of the '415 patent by offering to sell and selling the LenSx that its customers use to infringe the patent, in violation of 35 U.S.C. § 271(c). Alcon does so knowing that the LenSx constitutes a material part of the invention, and that it is especially made and especially adapted for use in an infringement of the patent. The LenSx is

designed and configured so that the customer will use the system to perform FDA-approved anterior capsulotomy in a manner that infringes the patent, including as set forth limitation-by-limitation in the paragraphs above. The customer necessarily infringes the patent when it uses the LenSx for the FDA-approved indicated use in the creation of an anterior capsulotomy during cataract surgery. The LenSx includes a separate and distinct mode of operation, the "Capsule" Program, that performs anterior capsulotomy in an infringing manner, and for which there is no substantial noninfringing use. Using the LenSx for the FDA-approved indication of anterior capsulotomy during cataract surgery is not a staple article or commodity of commerce, and does not have a substantial noninfringing use. Upon information and belief, customers have no practical ability to modify or use the LenSx for the indicated use of anterior capsulotomy in a way to avoid infringement of the '415 patent.

230. Alcon is not licensed under the '415 patent.

231. J&J Vision has been damaged and will continue to be damaged by Alcon's infringement of the '415 patent.

232. J&J Vision has suffered and will continue to suffer irreparable harm unless and until Alcon's infringing activities are enjoined by this Court. J&J Vision does not have an adequate remedy at law.

233. Despite Alcon's knowledge of the '415 patent and of its infringing activities, Alcon has continued to manufacture, use, offer to sell, and/or sell the LenSx. Alcon's infringement of the '415 patent has been willful, making this an exceptional case and entitling J&J Vision to an award of increased damages and attorneys' fees.

## COUNT VII
## Infringement of the '448 Patent

234. J&J Vision incorporates by reference the allegations set forth in paragraphs 1 through 233 as though fully set forth herein.

235. Alcon has directly and indirectly infringed, and continues to infringe, literally or under the doctrine of equivalents, one or more claims of the '448 patent, by making, using, offering to sell, and/or selling the LenSx and consumables in the United States, and supplying or causing to be supplied the LenSx and consumables from the United States for use abroad, without authority or license, in violation of 35 U.S.C. § 271.

236. For example, the LenSx meets each limitation of claim 1 of the '448 patent, which claims:

> A laser surgical system for making incisions in ocular tissue during a cataract surgical procedure, the system comprising:
>
> > a laser system comprising a scanning assembly, a laser operable to generate a laser beam configured to incise ocular issue, and an imaging device; and

a control system operably coupled to the laser system and configured to:

operate the imaging device to generate image data for ocular tissue of a patient's eye, the image data including lens interior image data for an interior portion of the lens of the patient's eye;

process the image data to determine an anterior capsulotomy scanning pattern for scanning a focal zone of the laser beam for performing an anterior capsulotomy; and

operate the laser and the scanning assembly to scan the focal zone of the laser beam in the anterior capsulotomy scanning pattern to perform the anterior capsulotomy,

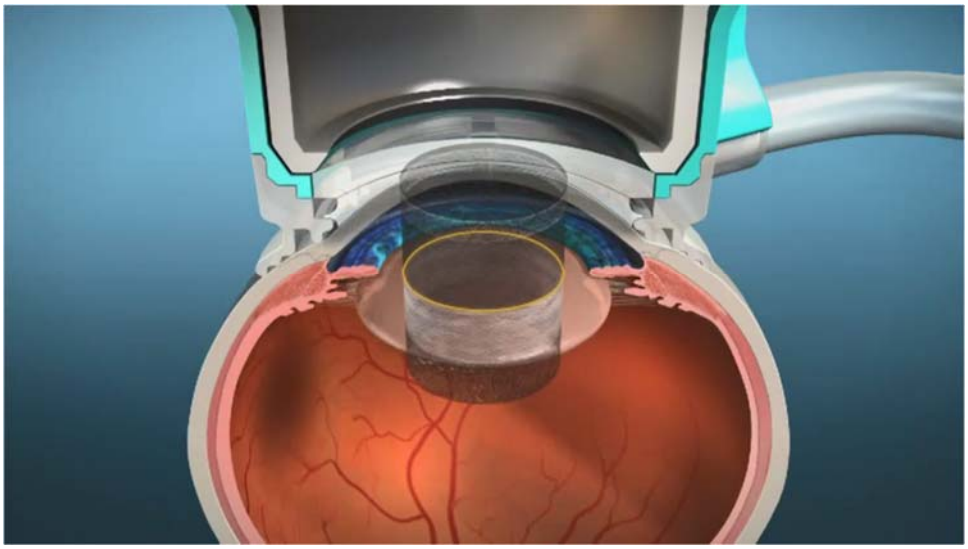
wherein positioning of the focal zone is guided by the control system based on the image data.

237. The LenSx is a laser surgical system for making incisions in ocular tissue during a cataract surgical procedure. For example, Alcon has stated that "[t]he LenSx® Laser is indicated for use in patients undergoing cataract surgery for removal of the crystalline lens. Intended uses in cataract surgery include anterior capsulotomy, phacofragmentation, and the creation of single plane and multi-plane arc cuts/incisions in the cornea, each of which may be performed either individually or consecutively during the same procedure. … The LenSx® Laser creates incisions through tightly focused femtosecond laser pulses that cut tissue with micron-scale precision."

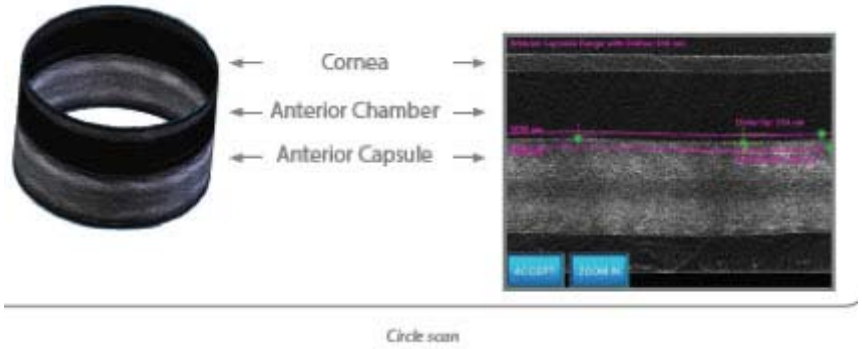
238. The LenSx has a laser system comprising a scanning assembly, a laser operable to generate a laser beam configured to incise ocular tissue, and an imaging

device. For example, Alcon has stated that the LenSx device console "houses the laser source, power supplies, control electronics, cooling system, beam delivery device, optical coherence tomography (OCT) device, video microscope and computers." Alcon has also stated that the LenSx has "an ophthalmic surgical laser which uses focused femtosecond laser pulses to create incisions and to separate tissue within the lens capsule, crystalline lens, and the cornea." Alcon has also stated that "[a] computer-controlled scanning system directs the laser beam throughout a three-dimensional pattern to produce an incision."

239. The LenSx has a control system operably coupled to the laser system and configured to operate the imaging device to generate image data for ocular tissue of a patient's eye, the image data including lens interior image data for an interior portion of the lens of the patient's eye. For example, Alcon has stated that "[a] computer monitors and controls the beam energy, repetition rate, safety shutters, footswitch, laser diagnostics, the position of the scanners and the position of the scanning objective lens." Upon information and belief, the LenSx uses its OCT imaging to generate what Alcon refers to as a circle scan. For example, Alcon has illustrated a circle scan as follows:



The circle scan provides image data for an interior portion of the patient's eye. For example, Alcon has shown an image of a circle scan as follows:




240. The LenSx has a control system operably coupled to the laser system and configured to process the image data to determine an anterior capsulotomy scanning pattern for scanning a focal zone of the laser beam for performing an anterior capsulotomy. For example, Alcon has stated that the LenSx "includes an optical coherence tomography (OCT) based imaging device that assists in localizing specific target locations." Alcon has also stated that a "[c]ircle scan OCT image of

the lens and capsule is displayed [on] the top right area of the Surgical Display. The circle scan is performed along the Capsule Pattern diameter as defined on the video microscope image of the eye." Alcon has also stated that "[t]he Capsule Pattern is used to perform an anterior capsulotomy of the crystalline lens." Alcon has also stated that "[t]he surgical effect is produced by scanning thousands of individual pulses" and the location of those pulses "is controlled by moving the focus of the laser beam to the desired surgical target location. A computer-controlled scanning system directs the laser beam throughout a three-dimensional pattern to produce an incision."

241. The LenSx has a control system operably coupled to the laser system and configured to operate the laser and the scanning assembly to scan the focal zone of the laser beam in the anterior capsulotomy scanning pattern to perform the anterior capsulotomy, wherein positioning of the focal zone is guided by the control system based on the image data. For example, Alcon has stated that in the LenSx, "[a] computer monitors and controls the beam energy, repetition rate, safety shutters, footswitch, laser diagnostics, the position of the scanners and the position of the scanning objective lens." Alcon has also stated that a "[c]ircle scan OCT image of the lens and capsule is displayed [on] the top right area of the Surgical Display. The circle scan is performed along the Capsule Pattern diameter as defined on the video microscope image of the eye." Alcon has also stated that "[t]he Capsule Pattern is

used to perform an anterior capsulotomy of the crystalline lens." Alcon has also stated that "[t]he surgical effect is produced by scanning thousands of individual pulses" and the location of those pulses "is controlled by moving the focus of the laser beam to the desired surgical target location. A computer-controlled scanning system directs the laser beam throughout a three-dimensional pattern to produce an incision…. The location of the tissue photodisruption is controlled by moving the focus of the laser beam to the desired surgical target location."

242. Alcon's manufacture, use, offer to sell, and sale of the LenSx in the United States has infringed and continues to infringe the '448 patent under 35 U.S.C. § 271(a).

243. Alcon's customers in the United States have directly infringed and continue to directly infringe the '448 patent by using the LenSx for its FDA-approved indications (including anterior capsulotomy).

244. Alcon has actively induced and continues to actively induce infringement of the '448 patent by encouraging its customers to use the LenSx, with specific intent, knowledge and/or willful blindness that the induced acts constitute patent infringement, in violation of 35 U.S.C. § 271(b). Upon information and belief, Alcon's inducing acts include marketing the LenSx, supporting the ongoing use of the LenSx by providing consumables such as the LenSx SoftFit Patient Interface for use with the LenSx, and providing installation, maintenance, service, and/or repair

of the LenSx. Alcon has stated that the "LenSx® Laser requires use of proprietary sterile disposable Patient Interfaces." Alcon has further stated "[t]he consumables used in conjunction with ALCON® instrument products constitute a complete surgical system." Alcon's inducing acts also include providing instructions to use the LenSx for its FDA-approved indications (including anterior capsulotomy) in an infringing manner, including providing the information relevant to each of the claim limitations that is referenced and/or quoted in the paragraphs above. Additionally, upon information and belief, Alcon has published and provided product documentation and educational materials that instruct and encourage its customers to use the LenSx for its FDA-approved indications in an infringing manner, with knowledge and/or with willful blindness that the induced acts constitute patent infringement. Moreover, upon information and belief, Alcon warns customers in the Operator's Manual for the LenSx that its "instructions must be observed."

245. Alcon has known of the '448 patent and of its infringement prior to this litigation, and it is further on notice through this lawsuit. Alcon's knowledge of the '448 patent, together with its knowledge about the design and operation of the LenSx, gave Alcon knowledge that its customers' use of the LenSx constitutes patent infringement, because the language of the '448 patent claims plainly reads upon the LenSx. Alcon's knowledge of infringement is also demonstrated by its receipt of correspondence and infringement charts specifically identifying its infringing acts,

the allegations contained in the original complaint, its prior knowledge of the patent and the subject matter claimed, its statements touting the advantages of features that it knew to be patented, and the affirmative measures it took to address its risk of liability for patent infringement. Alcon's specific intent to induce infringement is demonstrated by its continued infringing acts despite this knowledge.

246. Alcon has contributed to and continues to contribute to infringement of the '448 patent by offering to sell and selling the LenSx that its customers use to infringe the patent, in violation of 35 U.S.C. § 271(c). Alcon does so knowing that the LenSx constitutes a material part of the invention, and that it is especially made and especially adapted for use in an infringement of the patent. The LenSx is designed and configured so that the customer will use the system to perform FDA-approved anterior capsulotomy in a manner that infringes the patent, including as set forth limitation-by-limitation in the paragraphs above. The customer necessarily infringes the patent when it uses the LenSx for the FDA-approved indicated use in the creation of an anterior capsulotomy during cataract surgery. The LenSx includes a separate and distinct mode of operation, the "Capsule" Program, that performs anterior capsulotomy in an infringing manner, and for which there is no substantial noninfringing use. Using the LenSx for the FDA-approved indications of anterior capsulotomy during cataract surgery is not a staple article or commodity of commerce, and does not have a substantial noninfringing use. Upon information and

belief, customers have no practical ability to modify or use the LenSx for the indicated use of anterior capsulotomy in a way to avoid infringement of the '448 patent.

247. Alcon has infringed and continues to infringe the '448 patent by supplying or causing to be supplied in or from the United States, without authority, all or a substantial portion of the components of the patented invention, including but not limited to the LenSx (in either assembled or unassembled form), parts and software for the LenSx, and consumables such as the LenSx SoftFit Patient Interface, where such components are uncombined in whole or in part, in such a manner as to actively induce the combination of such components outside of the United States in a manner that would infringe the patent if such combination occurred within the United States, in violation of 35 U.S.C. § 271(f)(1). The components include but are not limited to the hardware and software components that are used to enable and perform the "Capsule" Program that performs the FDA-approved anterior capsulotomy in an infringing manner. Alcon's inducing acts include instructions on assembly and use of the LenSx and consumables for use with the LenSx, marketing the LenSx, and providing installation, maintenance, service, and/or repair of the LenSx. Alcon has stated that the "LenSx® Laser requires use of proprietary sterile disposable Patient Interfaces." Alcon has further stated "[t]he consumables used in conjunction with ALCON® instrument products constitute a complete surgical

system." Additionally, upon information and belief, Alcon publishes and provides product documentation and educational materials that instruct and encourage its customers to use the LenSx for its FDA-approved indications for use and in an infringing manner, including providing the information relevant to each of the claim limitations that is referenced and/or quoted in the paragraphs above, with knowledge and/or with willful blindness that the induced acts constitute patent infringement.

248. Alcon has infringed and continues to infringe the '448 patent by supplying or causing to be supplied in or from the United States, without authority, at least one component of the patented invention, including but not limited to the LenSx (in either assembled or unassembled form), and parts and software for the LenSx, that is especially made or especially adapted for use in the invention and not a staple article or commodity of commerce suitable for substantial noninfringing use, where such component is uncombined in whole or in part, knowing that such component is so made or adapted and intending that such component(s) will be combined outside of the United States in a manner that infringe the patent if such combination occurred within the United States, in violation of 35 U.S.C. § 271(f)(2). The components include but are not limited to the hardware and software components that are used to enable and perform the "Capsule" Program that performs the FDA-approved anterior capsulotomy in an infringing manner, including as set forth limitation-by-limitation in the paragraphs above, and for which

there are no substantial noninfringing uses. Using the LenSx for the FDA-approved indicated use of anterior capsulotomy during cataract surgery is not a staple article or commodity of commerce, and does not have a substantial noninfringing use. Upon information and belief, customers have no practical ability to modify or use the LenSx or the components thereto for the indicated use of anterior capsulotomy in a way to avoid infringement of the '448 patent.

249. Alcon is not licensed under the '448 patent.

250. The marking requirement of 35 U.S.C. § 287(a) has been satisfied through J&J Vision's marking of the Catalys® Precision Laser System.

251. J&J Vision has been damaged and will continue to be damaged by Alcon's infringement of the '448 patent.

252. J&J Vision has suffered and will continue to suffer irreparable harm unless and until Alcon's infringing activities are enjoined by this Court. J&J Vision does not have an adequate remedy at law.

253. Despite Alcon's knowledge of the '448 patent and of its infringing activities, Alcon has continued to manufacture, use, offer to sell, and/or sell the LenSx. Alcon's infringement of the '448 patent has been willful, making this an exceptional case and entitling J&J Vision to an award of increased damages and attorneys' fees.

## COUNT VIII
## Infringement of the '732 Patent

254. J&J Vision incorporates by reference the allegations set forth in paragraphs 1 through 253 as though fully set forth herein.

255. Alcon has directly and indirectly infringed, and continues to infringe, literally or under the doctrine of equivalents, one or more claims of the '732 patent, by making, using, offering to sell, and/or selling the LenSx and consumables in the United States, and supplying or causing to be supplied the LenSx and consumables from the United States for use abroad, without authority or license, in violation of 35 U.S.C. § 271.

256. For example, the LenSx meets each limitation of claim 1 of the '732 patent, which claims:

> A laser surgical system for making incisions in ocular tissue during a cataract surgical procedure, the system comprising:
>
> > a laser operable to generate a laser beam for incising ocular tissue;
> >
> > a scanning assembly operable to direct a focal zone of the laser beam to locations within a patient's eye;
> >
> > an optical coherence tomography (OCT) imaging device; and
> >
> > a control system operably coupled to the laser, the scanning assembly, and the OCT imaging device; the control system being configured to:
> >
> > > operate the OCT imaging device to generate image data for ocular tissue of the patient, the image data including

> lens interior image data for an interior portion of the lens of the patient's eye;
>
> process the image data to determine an anterior capsulotomy scanning pattern for scanning the focal zone of the laser beam for performing an anterior capsulotomy; and
>
> operate the laser and the scanning assembly to scan the focal zone of the laser beam in the anterior capsulotomy scanning pattern so as to perform the anterior capsulotomy, wherein positioning of the focal zone is guided by the control system based on the image data.

257. The LenSx is a laser surgical system for making incisions in ocular tissue during a cataract surgical procedure. For example, Alcon has stated that "[t]he LenSx® Laser is indicated for use in patients undergoing cataract surgery…. The LenSx® Laser creates incisions through tightly focused femtosecond laser pulses that cut tissue with micron-scale precision."

258. The LenSx has a laser operable to generate a laser beam for incising ocular tissue. For example, Alcon has stated that the LenSx device console "houses the laser source, power supplies, control electronics, cooling system, beam delivery device, optical coherence tomography (OCT) device, video microscope and computers." Alcon has also stated that the LenSx "uses focused femtosecond laser pulses to create incisions and separates tissue in the lens capsule, crystalline lens and cornea."

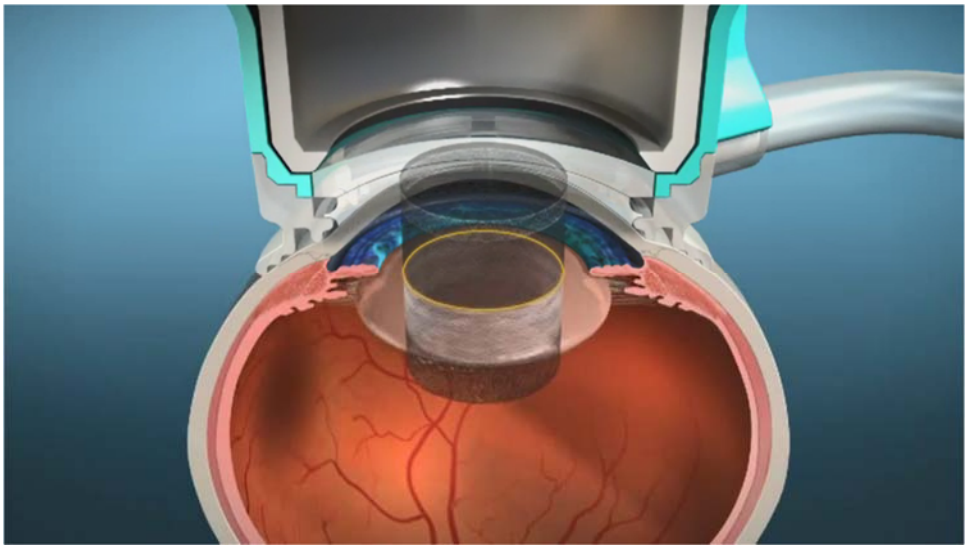
259. The LenSx has a scanning assembly operable to direct a focal zone of the laser beam to locations within a patient's eye. For example, Alcon has stated that

the LenSx has "an ophthalmic surgical laser which uses focused femtosecond laser pulses to create incisions and to separate tissue within the lens capsule, crystalline lens, and the cornea. A femtosecond light pulse[] is focused into a sufficiently small spot in order to achieve photodisruption of the tissue inside the focus. A tiny volume of tissue, a few microns in diameter, is thereby photodisrupted at the laser focus. A computer-controlled scanning system directs the focused laser beam throughout a three-dimensional pattern to produce an incision."

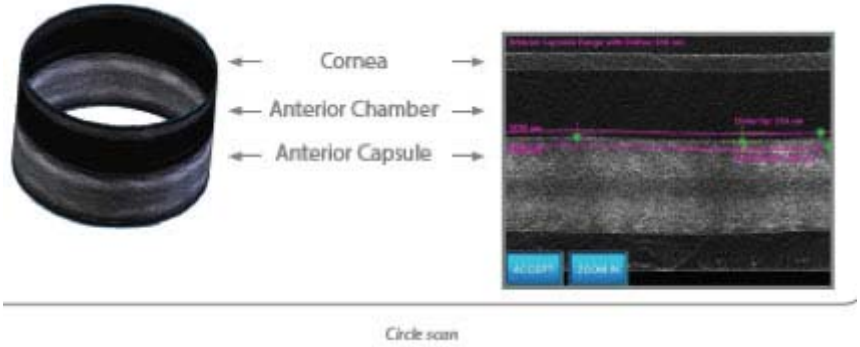
260. The LenSx has an optical coherence tomography (OCT) imaging device. For example, Alcon has stated that the LenSx device console "houses the laser source, power supplies, control electronics, cooling system, beam delivery device, optical coherence tomography (OCT) device, video microscope and computers."

261. The LenSx has a control system operably coupled to the laser, the scanning assembly, and the OCT imaging device; the control system being configured to operate the OCT imaging device to generate image data for ocular tissue of the patient, the image data including lens interior image data for an interior portion of the lens of the patient's eye. For example, Alcon has stated that "[a] computer monitors and controls the beam energy, repetition rate, safety shutters, footswitch, laser diagnostics, the position of the scanners and the position of the scanning objective lens." Upon information and belief, the LenSx uses its OCT

imaging device to generate what Alcon refers to as a circle scan. For example, Alcon has illustrated a circle scan as follows:



The circle scan provides image data for an interior portion of the lens of the patient's eye. For example, Alcon has shown an image of a circle scan as follows:




262. The LenSx has a control system operably coupled to the laser, the scanning assembly, and the OCT imaging device; the control system being configured to process the image data to determine an anterior capsulotomy scanning pattern for scanning the focal zone of the laser beam for performing an anterior

capsulotomy. For example, Alcon has stated that the LenSx "includes an optical coherence tomography (OCT) based imaging device that assists in localizing specific target locations." Alcon has also stated that a "[c]ircle scan OCT image of the lens and capsule is displayed [on] the top right area of the Surgical Display. The circle scan is performed along the Capsule Pattern diameter as defined on the video microscope image of the eye." Alcon has also stated that "[t]he Capsule Pattern is used to perform an anterior capsulotomy of the crystalline lens." Alcon has also stated that in the LenSx, "a computer-controlled scanning system directs the laser beam throughout a three-dimensional pattern to produce an incision…. The location of the tissue photodisruption is controlled by moving the focus of the laser beam to the desired surgical target location." Upon information and belief, the LenSx is indicated for use in the creation of an anterior capsulotomy. Alcon has stated that "[a]nterior capsulotomy patterns are programmed to cut from at least 100 microns below and 100 microns above the anterior capsule." Alcon has described the anterior capsulotomy pattern as a "treatment pattern" that "begins as a scanned circle located below the depth of the anterior capsule. Once a scanned circle is completed, a new circle is scanned a few microns above the first circle. As each circle is completed, a cylindrical incision is created. The pattern is automatically completed when the anterior extent of the incision is reached."

263. The LenSx has a control system operably coupled to the laser, the scanning assembly, and the OCT imaging device; the control system being configured to operate the laser and the scanning assembly to scan the focal zone of the laser beam in the anterior capsulotomy scanning pattern so as to perform the anterior capsulotomy, wherein positioning of the focal zone is guided by the control system based on the image data. For example, Alcon has stated that a "[c]ircle scan OCT image of the lens and capsule is displayed [on] the top right area of the Surgical Display. The circle scan is performed along the Capsule Pattern diameter as defined on the video microscope image of the eye." Alcon has also stated that "[t]he Capsule Pattern is used to perform an anterior capsulotomy of the crystalline lens." Alcon has also stated that "[t]he surgical effect is produced by scanning thousands of individual pulses" and the location of those pulses "is controlled by moving the focus of the laser beam to the desired surgical target location. A computer-controlled scanning system directs the laser beam throughout a three-dimensional pattern to produce an incision."

264. Alcon's manufacture, use, offer to sell, and sale of the LenSx in the United States has infringed and continues to infringe the '732 patent under 35 U.S.C. § 271(a).

265. Alcon's customers in the United States have directly infringed and continue to directly infringe the '732 patent by using the LenSx for its FDA-approved indications (including anterior capsulotomy).

266. Alcon has actively induced and continues to actively induce infringement of the '732 patent by encouraging its customers to use the LenSx, with specific intent, knowledge and/or willful blindness that the induced acts constitute patent infringement, in violation of 35 U.S.C. § 271(b). Upon information and belief, Alcon's inducing acts include marketing the LenSx, supporting the ongoing use of the LenSx by providing consumables such as the LenSx SoftFit Patient Interface for use with the LenSx, and providing installation, maintenance, service, and/or repair of the LenSx. Alcon has stated that the "LenSx® Laser requires use of proprietary sterile disposable Patient Interfaces." Alcon has further stated "[t]he consumables used in conjunction with ALCON® instrument products constitute a complete surgical system." Alcon's inducing acts also include providing instructions to use the LenSx for its FDA-approved indications (including anterior capsulotomy) in an infringing manner, including providing the information relevant to each of the claim limitations that is referenced and/or quoted in the paragraphs above. Additionally, upon information and belief, Alcon has published and provided product documentation and educational materials that instruct and encourage its customers to use the LenSx for its FDA-approved indications in an infringing manner, with

knowledge and/or with willful blindness that the induced acts constitute patent infringement. Moreover, upon information and belief, Alcon warns customers in the Operator's Manual for the LenSx that its "instructions must be observed."

267. Alcon has known of the '732 patent and of its infringement prior to this litigation, and it is further on notice through this lawsuit. Alcon's knowledge of the '732 patent, together with its knowledge about the design and operation of the LenSx, gave Alcon knowledge that its customers' use of the LenSx constitutes patent infringement, because the language of the '732 patent claims plainly reads upon the LenSx. Alcon's knowledge of infringement is also demonstrated by its receipt of correspondence and infringement charts specifically identifying its infringing acts, the allegations contained in the original complaint, its prior knowledge of the patent and the subject matter claimed, its statements touting the advantages of features that it knew to be patented, and the affirmative measures it took to address its risk of liability for patent infringement. Alcon's specific intent to induce infringement is demonstrated by its continued infringing acts despite this knowledge.

268. Alcon has contributed to and continues to contribute to infringement of the '732 patent by offering to sell and selling the LenSx that its customers use to infringe the patent, in violation of 35 U.S.C. § 271(c). Alcon does so knowing that the LenSx constitutes a material part of the invention, and that it is especially made and especially adapted for use in infringing the patent. The LenSx is designed and

configured so that the customer will use the system to perform FDA-approved anterior capsulotomy in a manner that infringes the patent, including as set forth limitation-by-limitation in the paragraphs above. The customer necessarily infringes the patent when it uses the LenSx for the FDA-approved indicated use in the creation of an anterior capsulotomy during cataract surgery. The LenSx includes a separate and distinct mode of operation, the "Capsule" Program, that performs anterior capsulotomy in an infringing manner, and for which there is no substantial noninfringing use. Using the LenSx for the FDA-approved indications of anterior capsulotomy during cataract surgery is not a staple article or commodity of commerce, and does not have a substantial noninfringing use. Upon information and belief, customers have no practical ability to modify or use the LenSx for the indicated use of anterior capsulotomy in a way to avoid infringement of the '732 patent.

269. Alcon has infringed and continues to infringe the '732 patent by supplying or causing to be supplied in or from the United States, without authority, all or a substantial portion of the components of the patented invention, including but not limited to the LenSx (in either assembled or unassembled form), parts and software for the LenSx, and consumables such as the LenSx SoftFit Patient Interface, where such components are uncombined in whole or in part, in such a manner as to actively induce the combination of such components outside of the United States in

a manner that would infringe the patent if such combination occurred within the United States, in violation of 35 U.S.C. § 271(f)(1). The components include but are not limited to the hardware and software components that are used to enable and perform the "Capsule" Program that performs the FDA-approved anterior capsulotomy in an infringing manner. Alcon's inducing acts include instructions on assembly and use of the LenSx and consumables for use with the LenSx, marketing the LenSx, and providing installation, maintenance, service, and/or repair of the LenSx. Alcon has stated that the "LenSx® Laser requires use of proprietary sterile disposable Patient Interfaces." Alcon has further stated "[t]he consumables used in conjunction with ALCON® instrument products constitute a complete surgical system." Additionally, upon information and belief, Alcon publishes and provides product documentation and educational materials that instruct and encourage its customers to use the LenSx for its FDA-approved indications for use and in an infringing manner, including providing the information relevant to each of the claim limitations that is referenced and/or quoted in the paragraphs above, with knowledge and/or with willful blindness that the induced acts constitute patent infringement.

270. Alcon has infringed and continues to infringe the '732 patent by supplying or causing to be supplied in or from the United States, without authority, at least one component of the patented invention, including but not limited to the LenSx (in either assembled or unassembled form), and parts and software for the

LenSx, that is especially made or especially adapted for use in the invention and not a staple article or commodity of commerce suitable for substantial noninfringing use, where such component is uncombined in whole or in part, knowing that such component is so made or adapted and intending that such component(s) will be combined outside of the United States in a manner that infringe the patent if such combination occurred within the United States, in violation of 35 U.S.C. § 271(f)(2). The components include but are not limited to the hardware and software components that are used to enable and perform the "Capsule" Program that performs the FDA-approved anterior capsulotomy in an infringing manner, including as set forth limitation-by-limitation in the paragraphs above, and for which there are no substantial noninfringing uses. Using the LenSx for the FDA-approved indicated use of anterior capsulotomy during cataract surgery is not a staple article or commodity of commerce, and does not have a substantial noninfringing use. Upon information and belief, customers have no practical ability to modify or use the LenSx or the components thereto for the indicated use of anterior capsulotomy in a way to avoid infringement of the '732 patent.

271. Alcon is not licensed under the '732 patent.

272. The marking requirement of 35 U.S.C. § 287(a) has been satisfied through J&J Vision's marking of the Catalys® Precision Laser System.

273. J&J Vision has been damaged and will continue to be damaged by Alcon's infringement of the '732 patent.

274. J&J Vision has suffered and will continue to suffer irreparable harm unless and until Alcon's infringing activities are enjoined by this Court. J&J Vision does not have an adequate remedy at law.

275. Despite Alcon's knowledge of the '732 patent and of its infringing activities, Alcon has continued to manufacture, use, offer to sell, and/or sell the LenSx. Alcon's infringement of the '732 patent has been willful, making this an exceptional case and entitling J&J Vision to an award of increased damages and attorneys' fees.

## COUNT IX
## Infringement of the '725 Patent

276. J&J Vision incorporates by reference the allegations set forth in paragraphs 1 through 275 as though fully set forth herein.

277. Alcon has directly and indirectly infringed, and continues to infringe, literally or under the doctrine of equivalents, one or more claims of the '725 patent, by making, using, offering to sell, and/or selling the LenSx and consumables in the United States, and supplying or causing to be supplied the LenSx and consumables from the United States for use abroad, without authority or license, in violation of 35 U.S.C. § 271.

278. For example, the LenSx meets each limitation of claim 1 of the '725 patent, which claims:

> A laser surgical system for making incisions in ocular tissues during a cataract surgical procedure, the system comprising:
>
> > a laser system comprising a scanning assembly, a laser operable to generate a laser beam configured to incise ocular tissue;
> >
> > an imaging device configured to acquire point by point image data from locations distributed throughout a volume of a crystalline lens of the patient and construct one or more images of the patient's eye tissues from the image data, wherein the one or more images comprise an image of at least a portion of the crystalline lens; and
> >
> > a control system operably coupled to the laser system and configured to:
> >
> > > operate the imaging device to generate image data for patient's crystalline lens;
> > >
> > > process the image data to identify a location for each of one or more targets in the lens of the patient;
> > >
> > > process the image data to determine a treatment scanning pattern for scanning a focal zone of the laser beam for performing one or more incisions in the lens capsule; and
> > >
> > > operate the laser and the scanning assembly to scan the focal zone of the laser beam in the treatment scanning pattern at each location of the one or more targets, wherein positioning of the focal zone is guided by the control system based on the location of the one or more targets so as to perform the one or more incision in the lens capsule.

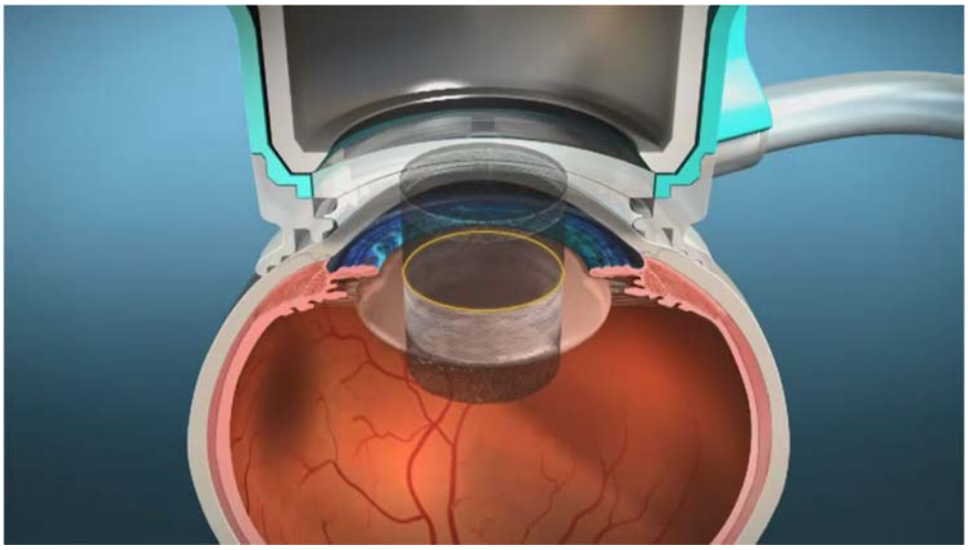
279. The LenSx is a laser surgical system for making incisions in ocular tissues during a cataract surgical procedure. For example, Alcon has stated that "[t]he LenSx® Laser is indicated for use in patients undergoing cataract surgery …

The LenSx® Laser creates incisions through tightly focused femtosecond laser pulses that cut tissue with micron-scale precision."

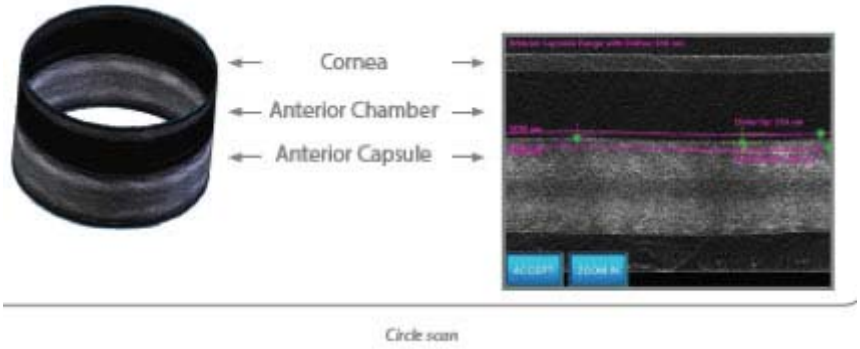
280. The LenSx has a laser system comprising a scanning assembly, a laser operable to generate a laser beam configured to incise ocular tissue. For example, Alcon has stated that the LenSx has "an ophthalmic surgical laser which uses focused femtosecond laser pulses to create incisions and to separate tissue within the lens capsule, crystalline lens, and the cornea. A femtosecond light pulse[] is focused into a sufficiently small spot in order to achieve photodisruption of the tissue inside the focus. A tiny volume of tissue, a few microns in diameter, is thereby photodisrupted at the laser focus. A computer-controlled scanning system directs the focused laser beam throughout a three-dimensional pattern to produce an incision."

281. The LenSx has an imaging device configured to acquire point by point image data from locations distributed throughout a volume of a crystalline lens of the patient and construct one or more images of the patient's eye tissues from the image data, wherein the one or more images comprise an image of at least a portion of the crystalline lens. For example, Alcon has stated that "[t]he OCT consists of a low power visible wavelength light source that is scanned throughout the transparent structures of the anterior chamber of the eye. Light scattered from ocular structures and surfaces within the eye is analyzed to produce cross sectional images of the eye's anterior segment. Various sectioned images may be produced, including a wide field

line scan of the anterior chamber, magnified cross sections of the cornea at the points of planned incisions, and circle and line scans of the lens and capsule." Upon information and belief, the LenSx uses its OCT imaging device to generate what Alcon refers to as a circle scan. For example, Alcon has illustrated a circle scan as follows:

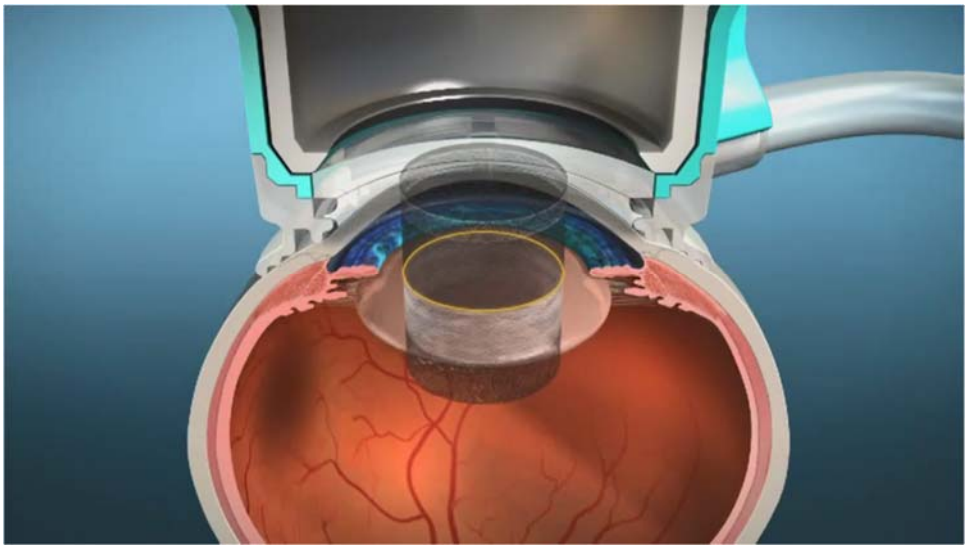


The circle scan provides an image of at least a portion of the crystalline lens. For example, Alcon has shown an image of a circle scan as follows:

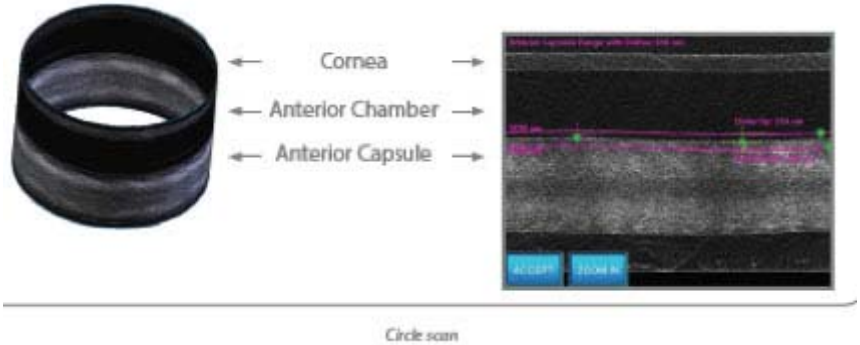



282. The LenSx has a control system operably coupled to the laser system and configured to operate the imaging device to generate image data for patient's

crystalline lens. For example, Alcon has stated that "[a] computer monitors and controls the beam energy, repetition rate, safety shutters, footswitch, laser diagnostics, the position of the scanners and the position of the scanning objective lens." Upon information and belief, the LenSx uses its OCT imaging device to generate what Alcon refers to as a circle scan. For example, Alcon has illustrated a circle scan as follows:



The circle scan provides an image of the patient's crystalline lens. For example, Alcon has shown an image of a circle scan as follows:



283. The LenSx has a control system operably coupled to the laser system and configured to process the image data to identify a location for each of one or more targets in the lens of the patient. For example, Alcon has stated that "[a] computer monitors and controls the beam energy, repetition rate, safety shutters, footswitch, laser diagnostics, the position of the scanners and the position of the scanning objective lens." Alcon has also stated that the LenSx "includes an optical coherence tomography (OCT) based imaging device that assists in localizing specific target locations." Alcon has stated that in the LenSx, "a computer-controlled scanning system directs the laser beam throughout a three-dimensional pattern to produce an incision…. The location of the tissue photodisruption is controlled by moving the focus of the laser beam to the desired surgical target location."

284. The LenSx has a control system operably coupled to the laser system and configured to process the image data to determine a treatment scanning pattern for scanning a focal zone of the laser beam for performing one or more incisions in the lens capsule. For example, Alcon has stated that the LenSx "includes an optical coherence tomography (OCT) based imaging device that assists in localizing specific target locations." Alcon has also stated that a "[c]ircle scan OCT image of the lens and capsule is displayed [on] the top right area of the Surgical Display. The circle scan is performed along the Capsule Pattern diameter as defined on the video microscope image of the eye." Alcon has also stated that "[t]he Capsule Pattern is

used to perform an anterior capsulotomy of the crystalline lens." Upon information and belief, an anterior capsulotomy requires performing one or more incisions in the lens capsule. Alcon has also stated that "[t]he surgical effect is produced by scanning thousands of individual pulses" and the location of those pulses "is controlled by moving the focus of the laser beam to the desired surgical target location. A computer-controlled scanning system directs the laser beam throughout a three-dimensional pattern to produce an incision."

285. The LenSx has a control system operably coupled to the laser system and configured to operate the laser and the scanning assembly to scan the focal zone of the laser beam in the treatment scanning pattern at each location of the one or more targets, wherein positioning of the focal zone is guided by the control system based on the location of the one or more targets so as to perform the one or more incision in the lens capsule. For example, Alcon has stated that in the LenSx, "[a] computer monitors and controls the beam energy, repetition rate, safety shutters, footswitch, laser diagnostics, the position of the scanners and the position of the scanning objective lens." Alcon has stated that in the LenSx, "a computer-controlled scanning system directs the laser beam throughout a three-dimensional pattern to produce an incision…. The location of the tissue photodisruption is controlled by moving the focus of the laser beam to the desired surgical target location." Alcon has also stated that the LenSx "includes an optical coherence tomography (OCT)

based imaging device that assists in localizing specific target locations." Upon information and belief, the LenSx is indicated for use in the creation of an anterior capsulotomy and laser phacofragmentation during cataract surgery. Upon information and belief an anterior capsulotomy requires performing one or more incisions in the lens capsule. For example, Alcon has described the anterior capsulotomy pattern as a "treatment pattern" that "begins as a scanned circle located below the depth of the anterior capsule. Once a scanned circle is completed, a new circle is scanned a few microns above the first circle. As each circle is completed, a cylindrical incision is created. The pattern is automatically completed when the anterior extent of the incision is reached."

286. Alcon's manufacture, use, offer to sell, and sale of the LenSx in the United States has infringed and continues to infringe the '725 patent under 35 U.S.C. § 271(a).

287. Alcon's customers in the United States have directly infringed and continue to directly infringe the '725 patent by using the LenSx for its FDA-approved indications (including anterior capsulotomy).

288. Alcon has actively induced and continues to actively induce infringement of the '725 patent by encouraging its customers to use the LenSx, with specific intent, knowledge and/or willful blindness that the induced acts constitute patent infringement, in violation of 35 U.S.C. § 271(b). Upon information and belief,

Alcon's inducing acts include marketing the LenSx, supporting the ongoing use of the LenSx by providing consumables such as the LenSx SoftFit Patient Interface for use with the LenSx, and providing installation, maintenance, service, and/or repair of the LenSx. Alcon has stated that the "LenSx® Laser requires use of proprietary sterile disposable Patient Interfaces." Alcon has further stated "[t]he consumables used in conjunction with ALCON® instrument products constitute a complete surgical system." Alcon's inducing acts also include providing instructions to use the LenSx for its FDA-approved indications (including anterior capsulotomy) in an infringing manner, including providing the information relevant to each of the claim limitations that is referenced and/or quoted in the paragraphs above. Additionally, upon information and belief, Alcon has published and provided product documentation and educational materials that instruct and encourage its customers to use the LenSx for its FDA-approved in an infringing manner, with knowledge and/or with willful blindness that the induced acts constitute patent infringement. Moreover, upon information and belief, Alcon warns customers in the Operator's Manual for the LenSx that its "instructions must be observed."

289. Alcon has known of the '725 patent and of its infringement prior to this litigation, and it is further on notice through this lawsuit. Alcon's knowledge of the '725 patent, together with its knowledge about the design and operation of the LenSx, gave Alcon knowledge that its customers' use of the LenSx constitutes patent

infringement, because the language of the '725 patent claims plainly reads upon the LenSx. Alcon's knowledge of infringement is also demonstrated by its receipt of correspondence and infringement charts specifically identifying its infringing acts, the allegations contained in the original complaint, its prior knowledge of the patent and the subject matter claimed, its statements touting the advantages of features that it knew to be patented, and the affirmative measures it took to address its risk of liability for patent infringement. Alcon's specific intent to induce infringement is demonstrated by its continued infringing acts despite this knowledge.

290. Alcon has contributed to and continues to contribute to infringement of the '725 patent by offering to sell and selling the LenSx that its customers use to infringe the patent, in violation of 35 U.S.C. § 271(c). Alcon does so knowing that the LenSx constitutes a material part of the invention, and that it is especially made and especially adapted for use in an infringement of the patent. The LenSx is designed and configured so that the customer will use the system to perform FDA-approved anterior capsulotomy in a manner that infringes the patent, including as set forth limitation-by-limitation in the paragraphs above. The customer necessarily infringes the patent when it uses the LenSx for the FDA-approved indicated use in the creation of an anterior capsulotomy during cataract surgery. The LenSx includes a separate and distinct mode of operation, the "Capsule" Program, that performs anterior capsulotomy in an infringing manner, and for which there is no substantial

noninfringing use. Using the LenSx for the FDA-approved indication of anterior capsulotomy during cataract surgery is not a staple article or commodity of commerce, and does not have a substantial noninfringing use. Upon information and belief, customers have no practical ability to modify or use the LenSx for the indicated use of anterior capsulotomy in a way to avoid infringement of the '725 patent.

291. Alcon has infringed and continues to infringe the '725 patent by supplying or causing to be supplied in or from the United States, without authority, all or a substantial portion of the components of the patented invention, including but not limited to the LenSx (in either assembled or unassembled form), parts and software for the LenSx, and consumables such as the LenSx SoftFit Patient Interface, where such components are uncombined in whole or in part, in such a manner as to actively induce the combination of such components outside of the United States in a manner that would infringe the patent if such combination occurred within the United States, in violation of 35 U.S.C. § 271(f)(1). The components include but are not limited to the hardware and software components that are used to enable and perform the "Capsule" Program that performs the FDA-approved anterior capsulotomy in an infringing manner. Alcon's inducing acts include instructions on assembly and use of the LenSx and consumables for use with the LenSx, marketing the LenSx, and providing installation, maintenance, service, and/or repair of the

LenSx. Alcon has stated that the "LenSx® Laser requires use of proprietary sterile disposable Patient Interfaces." Alcon has further stated "[t]he consumables used in conjunction with ALCON® instrument products constitute a complete surgical system." Additionally, upon information and belief, Alcon publishes and provides product documentation and educational materials that instruct and encourage its customers to use the LenSx for its FDA-approved indications for use and in an infringing manner, including providing the information relevant to each of the claim limitations that is referenced and/or quoted in the paragraphs above, with knowledge and/or with willful blindness that the induced acts constitute patent infringement.

292. Alcon has infringed and continues to infringe the '725 patent by supplying or causing to be supplied in or from the United States, without authority, at least one component of the patented invention, including but not limited to the LenSx (in either assembled or unassembled form), and parts and software for the LenSx, that is especially made or especially adapted for use in the invention and not a staple article or commodity of commerce suitable for substantial noninfringing use, where such component is uncombined in whole or in part, knowing that such component is so made or adapted and intending that such component(s) will be combined outside of the United States in a manner that infringe the patent if such combination occurred within the United States, in violation of 35 U.S.C. § 271(f)(2). The components include but are not limited to the hardware and software

components that are used to enable and perform the "Capsule" Program that performs the FDA-approved anterior capsulotomy in an infringing manner, including as set forth limitation-by-limitation in the paragraphs above, and for which there are no substantial noninfringing uses. Using the LenSx for the FDA-approved indicated uses of anterior capsulotomy during cataract surgery is not a staple article or commodity of commerce, and does not have a substantial noninfringing use. Upon information and belief, customers have no practical ability to modify or use the LenSx or the components thereto for the indicated use of anterior capsulotomy in a way to avoid infringement of the '725 patent.

293. Alcon is not licensed under the '725 patent.

294. The marking requirement of 35 U.S.C. § 287(a) has been satisfied through J&J Vision's marking of the Catalys® Precision Laser System.

295. J&J Vision has been damaged and will continue to be damaged by Alcon's infringement of the '725 patent.

296. J&J Vision has suffered and will continue to suffer irreparable harm unless and until Alcon's infringing activities are enjoined by this Court. J&J Vision does not have an adequate remedy at law.

297. Despite Alcon's knowledge of the '725 patent and of its infringing activities, Alcon has continued to manufacture, use, offer to sell, and/or sell the LenSx. Alcon's infringement of the '725 patent has been willful, making this an

exceptional case and entitling J&J Vision to an award of increased damages and attorneys' fees.

## COUNT X
## Infringement of the '023 Patent

298. J&J Vision incorporates by reference the allegations set forth in paragraphs 1 through 297 as though fully set forth herein.

299. Alcon has directly and indirectly infringed, and continues to infringe, literally or under the doctrine of equivalents, one or more claims of the '023 patent, by making, using, offering to sell, and/or selling the LenSx and consumables in the United States, and supplying or causing to be supplied the LenSx and consumables from the United States for use abroad, without authority or license, in violation of 35 U.S.C. § 271.

300. For example, the LenSx meets each limitation of claim 1 of the '023 patent, which claims:

> A cataract surgery scanning system for treating target tissue in one or more of a cornea, limbus or sclera of a patient's eye, comprising:
>
> > a treatment light source for generating a treatment light beam;
> >
> > a scanner for deflecting the light beam to form first and second treatment patterns of the treatment light beam under the control of a controller; and
> >
> > a delivery system comprising the controller operatively coupled to the treatment light source and the scanner, and programmed to: (i) deliver the first treatment pattern to a first target tissue selected from the group consisting of the cornea, limbus and sclera of the patient's eye to form a cataract incision therein that

> provides access to an eye chamber of the patient's eye, the incision to be formed by delivering the first treatment pattern only partially extending through the target tissue, and (ii) deliver the second treatment pattern to a second target tissue to form a relaxation incision along or near limbus tissue, or along corneal tissue-of the patient's eye.

301. The LenSx is a cataract surgery scanning system for treating target tissue in one or more of a cornea, limbus or sclera of a patient's eye. For example, Alcon has stated that "[t]he LenSx® Laser is indicated for use in patients undergoing cataract surgery for removal of the crystalline lens. Intended uses in cataract surgery include … the creation of single plane and multi-plane arc cuts/incisions in the cornea. … The incision is achieved by contiguously placed microphotodisruptions scanned by a computer-controlled delivery system."

302. The LenSx has a treatment light source for generating a treatment light beam. For example, Alcon has stated that "[t]he LenSx® Laser uses focused femtosecond laser pulses to create incisions and separates tissue in the lens capsule, crystalline lens and cornea."

303. The LenSx has a scanner for deflecting the light beam to form first and second treatment patterns of the treatment light beam under the control of a controller. For example, Alcon has stated that "[a] computer-controlled scanning system directs the laser beam throughout a three-dimensional pattern to produce an incision." Alcon has also stated that "[t]he Primary Incision Pattern is used to create

corneal incisions." Additionally, Alcon has stated that "[a]rcuate corneal cuts can be made using the Arcuate Incision Pattern."

304. The LenSx has a delivery system comprising the controller operatively coupled to the treatment light source and the scanner. For example, Alcon has stated that "[a] computer monitors and controls the beam energy, repetition rate, safety shutters, footswitch, laser diagnostics, the position of the scanners and the position of the scanning objective lens."

305. The LenSx is programmed to deliver the first treatment pattern to a first target tissue selected from the group consisting of the cornea, limbus and sclera of the patient's eye to form a cataract incision therein that provides access to an eye chamber of the patient's eye, the incision to be formed by delivering the first treatment pattern only partially extending through the target tissue. For example, Alcon has stated "[t]he Primary Incision Pattern is used to create corneal incisions." Alcon has also stated that "[t]he Primary Incision Pattern may represent a completely penetrating cut or a partial thickness cut."

306. The LenSx is programmed to deliver the second treatment pattern to a second target tissue to form a relaxation incision along or near limbus tissue, or along corneal tissue-of the patient's eye. For example, Alcon has stated "[a]rcuate corneal cuts can be made using the Arcuate Incision Pattern. Arcuate Incision Pattern cuts

are arc-shaped partial thickness cuts and are made in the cornea at a programmed diameter from the center."

307. Alcon's manufacture, use, offer to sell, and sale of the LenSx in the United States has infringed and continues to infringe the '023 patent under 35 U.S.C. § 271(a).

308. Alcon's customers in the United States have directly infringed and continue to directly infringe the '023 patent by using the LenSx for its FDA-approved indications (including corneal cuts/incisions during cataract surgery).

309. Alcon has actively induced and continues to actively induce infringement of the '023 patent by encouraging its customers to use the LenSx, with specific intent, knowledge and/or willful blindness that the induced acts constitute patent infringement, in violation of 35 U.S.C. § 271(b). Upon information and belief, Alcon's inducing acts include marketing the LenSx, supporting the ongoing use of the LenSx by providing consumables such as the LenSx SoftFit Patient Interface for use with the LenSx, and providing installation, maintenance, service, and/or repair of the LenSx. Alcon has stated that the "LenSx® Laser requires use of proprietary sterile disposable Patient Interfaces." Alcon has further stated "[t]he consumables used in conjunction with ALCON® instrument products constitute a complete surgical system." Alcon's inducing acts also include providing instructions to use the LenSx for its FDA-approved indications (including corneal cuts/incisions during

cataract surgery) in an infringing manner, including providing the information relevant to each of the claim limitations that is referenced and/or quoted in the paragraphs above. Additionally, upon information and belief, Alcon has published and provided product documentation and educational materials that instruct and encourage its customers to use the LenSx for its FDA-approved indications in an infringing manner, with knowledge and/or with willful blindness that the induced acts constitute patent infringement. Moreover, upon information and belief, Alcon warns customers in the Operator's Manual for the LenSx that its "instructions must be observed."

310. Alcon has known of the '023 patent and of its infringement prior to this litigation, and it is further on notice through this lawsuit. Alcon's knowledge of the '023 patent, together with its knowledge about the design and operation of the LenSx, gave Alcon knowledge that its customers' use of the LenSx constitutes patent infringement, because the language of the '023 patent claims plainly reads upon the LenSx. Alcon's knowledge of infringement is also demonstrated by its receipt of correspondence and infringement charts specifically identifying its infringing acts, the allegations contained in this amended complaint, its prior knowledge of the patent and the subject matter claimed, its statements touting the advantages of features that it knew to be patented, and the affirmative measures it took to address its risk of liability for patent infringement. Alcon's specific intent to induce

infringement is demonstrated by its continued infringing acts despite this knowledge.

311. Alcon has infringed and continues to infringe the '023 patent by supplying or causing to be supplied in or from the United States, without authority, all or a substantial portion of the components of the patented invention, including but not limited to the LenSx (in either assembled or unassembled form), parts and software for the LenSx, and consumables such as the LenSx SoftFit Patient Interface, where such components are uncombined in whole or in part, in such a manner as to actively induce the combination of such components outside of the United States in a manner that would infringe the patent if such combination occurred within the United States, in violation of 35 U.S.C. § 271(f)(1). The components include but are not limited to the hardware and software components that are used to enable and perform "Cornea Arcuate," "Cornea Primary," and "Cornea Secondary" Programs that perform the FDA-approved partial thickness corneal cuts/incisions during cataract surgery in an infringing manner. Alcon's inducing acts include instructions on assembly and use of the LenSx and consumables for use with the LenSx, marketing the LenSx, and providing installation, maintenance, service, and/or repair of the LenSx. Alcon has stated that the "LenSx® Laser requires use of proprietary sterile disposable Patient Interfaces." Alcon has further stated "[t]he consumables used in conjunction with ALCON® instrument products constitute a complete

surgical system." Additionally, upon information and belief, Alcon publishes and provides product documentation and educational materials that instruct and encourage its customers to use the LenSx for its FDA-approved indications for use and in an infringing manner, including providing the information relevant to each of the claim limitations that is referenced and/or quoted in the paragraphs above, with knowledge and/or with willful blindness that the induced acts constitute patent infringement.

312. Alcon is not licensed under the '023 patent.

313. The marking requirement of 35 U.S.C. § 287(a) has been satisfied through J&J Vision's marking of the Catalys® Precision Laser System.

314. J&J Vision has been damaged and will continue to be damaged by Alcon's infringement of the '023 patent.

315. J&J Vision has suffered and will continue to suffer irreparable harm unless and until Alcon's infringing activities are enjoined by this Court. J&J Vision does not have an adequate remedy at law.

316. Despite Alcon's knowledge of the '023 patent and of its infringing activities, Alcon has continued to manufacture, use, offer to sell, and/or sell the LenSx. Alcon's infringement of the '023 patent has been willful, making this an exceptional case and entitling J&J Vision to an award of increased damages and attorneys' fees.

## COUNT XI
## Infringement of the '024 Patent

317. J&J Vision incorporates by reference the allegations set forth in paragraphs 1 through 316 as though fully set forth herein.

318. Alcon has directly and indirectly infringed, and continues to infringe, literally or under the doctrine of equivalents, one or more claims of the '024 patent, by making, using, offering to sell, and/or selling the LenSx and consumables in the United States, and supplying or causing to be supplied the LenSx and consumables from the United States for use abroad, without authority or license, in violation of 35 U.S.C. § 271.

319. For example, the LenSx meets each limitation of claim 1 of the '024 patent, which claims:

> A cataract surgery method of treating target tissue in one or more of a cornea, limbus or sclera of a patient's eye, comprising:
>
> > generating a treatment light beam;
> >
> > deflecting the treatment light beam using a scanner to form first and second treatment patterns;
> >
> > delivering the first treatment pattern to a first target tissue selected from the group consisting of the cornea, limbus and sclera of the patient's eye to form a cataract incision that is sized to provide access to an eye chamber of the patient's eye for lens removal instrumentation; and
> >
> > delivering the second treatment pattern to a second target tissue to form a relaxation incision along or near limbus tissue or along corneal tissue anterior to the limbus tissue of the patient's eye to reduce astigmatism thereof,

wherein the incision formed by delivering the first treatment pattern only partially extends through the target tissue.

320. The LenSx practices a cataract surgery method of treating target tissue in one or more of a cornea, limbus or sclera of a patient's eye. For example, Alcon has stated that "[t]he LenSx® Laser is indicated for use in patients undergoing cataract surgery for removal of the crystalline lens. Intended uses in cataract surgery include … the creation of single plane and multi-plane arc cuts/incisions in the cornea. … The incision is achieved by contiguously placed microphotodisruptions scanned by a computer-controlled delivery system."

321. The LenSx generates a treatment light beam. For example, Alcon has stated that "[t]he LenSx® Laser uses focused femtosecond laser pulses to create incisions and separates tissue in the lens capsule, crystalline lens and cornea."

322. The LenSx deflects the treatment light beam using a scanner to form first and second treatment patterns. For example, Alcon has stated that "[a] computer-controlled scanning system directs the laser beam throughout a three-dimensional pattern to produce an incision." Alcon states that "[t]he Primary Incision Pattern is used to create corneal incisions." Additionally, Alcon has stated that "[a]rcuate corneal cuts can be made using the Arcuate Incision Pattern."

323. The LenSx delivers the first treatment pattern to a first target tissue selected from the group consisting of the cornea, limbus and sclera of the patient's eye to form a cataract incision that is sized to provide access to an eye chamber of

the patient's eye for lens removal instrumentation. For example, Alcon has stated that "[t]he LenSx® Laser is indicated for use in patients undergoing cataract surgery for removal of the crystalline lens. Intended uses in cataract surgery include … the creation of single plane and multi-plane arc cuts/incisions in the cornea." Alcon has also stated that "[t]he Primary Incision Pattern is used to create corneal incisions."

324. The LenSx delivers the second treatment pattern to a second target tissue to form a relaxation incision along or near limbus tissue or along corneal tissue anterior to the limbus tissue of the patient's eye to reduce astigmatism thereof, wherein the incision formed by delivering the first treatment pattern only partially extends through the target tissue. For example, Alcon has stated that "[a]rcuate corneal cuts can be made using the Arcuate Incision Pattern. Arcuate Incision Pattern cuts are arc-shaped partial thickness cuts and are made in the cornea at a programmed diameter from the center." Alcon has also stated that "[t]he Primary Incision Pattern is used to create corneal incisions. … The Primary Incision Pattern may represent a completely penetrating cut or a partial thickness cut."

325. Alcon's use of the LenSx in the United States has infringed and continues to infringe the '024 patent under 35 U.S.C. § 271(a).

326. Alcon's customers in the United States have directly infringed and continue to directly infringe the '024 patent by using the LenSx for its FDA-approved indications (including corneal cuts/incisions during cataract surgery).

327. Alcon has actively induced and continues to actively induce infringement of the '024 patent by encouraging its customers to use the LenSx, with specific intent, knowledge and/or willful blindness that the induced acts constitute patent infringement, in violation of 35 U.S.C. § 271(b). Upon information and belief, Alcon's inducing acts include marketing the LenSx, supporting the ongoing use of the LenSx by providing consumables such as the LenSx SoftFit Patient Interface for use with the LenSx, and providing installation, maintenance, service, and/or repair of the LenSx. Alcon has stated that the "LenSx® Laser requires use of proprietary sterile disposable Patient Interfaces." Alcon has further stated "[t]he consumables used in conjunction with ALCON® instrument products constitute a complete surgical system." Alcon's inducing acts also include providing instructions to use the LenSx for its FDA-approved indications (including corneal cuts/incisions during cataract surgery) in an infringing manner, including providing the information relevant to each of the claim limitations that is referenced and/or quoted in the paragraphs above. Additionally, upon information and belief, Alcon has published and provided product documentation and educational materials that instruct and encourage its customers to use the LenSx for its FDA-approved indications in an infringing manner, with knowledge and/or with willful blindness that the induced acts constitute patent infringement. Moreover, upon information and belief, Alcon

warns customers in the Operator's Manual for the LenSx that its "instructions must be observed."

328. Alcon has known of the '024 patent and of its infringement prior to this litigation, and it is further on notice through this lawsuit. Alcon's knowledge of the '024 patent, together with its knowledge about the design and operation of the LenSx, gave Alcon knowledge that its customers' use of the LenSx constitutes patent infringement, because the language of the '024 patent claims plainly reads upon the LenSx. Alcon's knowledge of infringement is also demonstrated by its receipt of correspondence and infringement charts specifically identifying its infringing acts, the allegations contained in this amended complaint, its prior knowledge of the patent and the subject matter claimed, its statements touting the advantages of features that it knew to be patented, and the affirmative measures it took to address its risk of liability for patent infringement. Alcon's specific intent to induce infringement is demonstrated by its continued infringing acts despite this knowledge.

329. Alcon is not licensed under the '024 patent.

330. J&J Vision has been damaged and will continue to be damaged by Alcon's infringement of the '024 patent.

331. J&J Vision has suffered and will continue to suffer irreparable harm unless and until Alcon's infringing activities are enjoined by this Court. J&J Vision does not have an adequate remedy at law.

332. Despite Alcon's knowledge of the '024 patent and of its infringing activities, Alcon has continued to manufacture, use, offer to sell, and/or sell the LenSx. Alcon's infringement of the '024 patent has been willful, making this an exceptional case and entitling J&J Vision to an award of increased damages and attorneys' fees.

## COUNT XII
## Infringement of the '648 Patent

333. J&J Vision incorporates by reference the allegations set forth in paragraphs 1 through 332 as though fully set forth herein.

334. Alcon has directly and indirectly infringed, and continues to infringe, literally or under the doctrine of equivalents, one or more claims of the '648 patent, by making, using, offering to sell, and/or selling the LenSx and consumables in the United States, and supplying or causing to be supplied the LenSx and consumables from the United States for use abroad, without authority or license, in violation of 35 U.S.C. § 271.

335. For example, the LenSx meets each limitation of claim 1 of the '648 patent, which claims:

A laser surgical system for making incisions in ocular tissues during a cataract surgical procedure, the system comprising:

a laser system comprising a scanning assembly;

a laser operable to generate a laser beam configured to incise ocular tissue;

an imaging device configured to acquire image data of at least a portion of the lens; and

a control system operably coupled to the laser system and configured to:

operate the imaging device to generate image data for the patient's crystalline lens;

process the image data to determine an anterior capsule incision scanning pattern for scanning a focal zone of the laser beam for performing an anterior capsule incision; and

operate the laser and the scanning assembly to scan the focal zone of the laser beam in the anterior capsule incision scanning pattern to perform the anterior capsule incision, wherein positioning of the focal zone is determined in part by the control system based on the image data.

336. The LenSx is a laser surgical system for making incisions in ocular tissues during a cataract surgical procedure. For example, Alcon has stated that "[t]he LenSx® Laser is indicated for use in patients undergoing cataract surgery … The LenSx® Laser creates incisions through tightly focused femtosecond laser pulses that cut tissue with micron-scale precision."

337. The LenSx has a laser system comprising a scanning assembly. For example, Alcon has stated that the LenSx has "[a] computer-controlled scanning

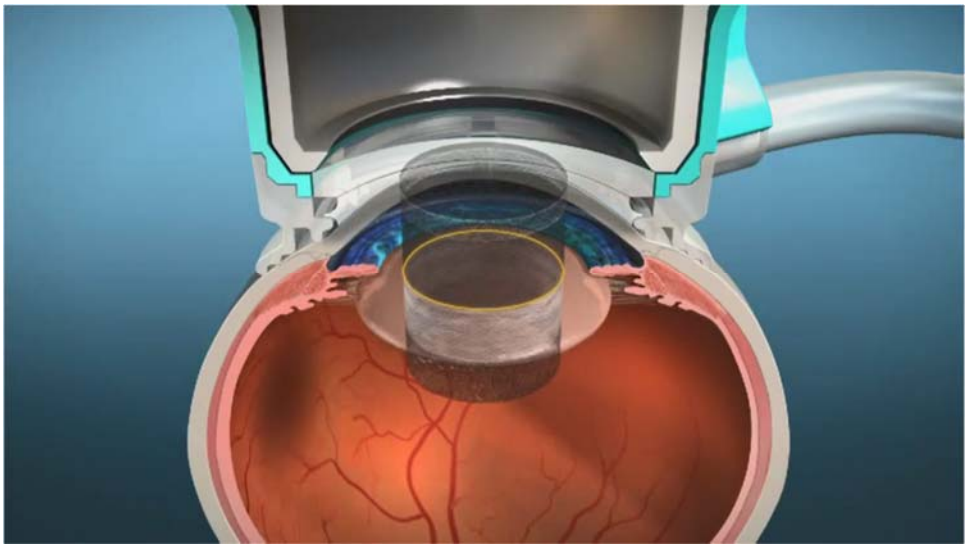
system [that] directs the focused laser beam throughout a three-dimensional pattern to produce an incision."

338. The LenSx has a laser operable to generate a laser beam configured to incise ocular tissue. For example, Alcon has stated that the LenSx has "an ophthalmic surgical laser which uses focused femtosecond laser pulses to create incisions and to separate tissue within the lens capsule, crystalline lens, and the cornea. A femtosecond light pulse[] is focused into a sufficiently small spot in order to achieve photodisruption of the tissue inside the focus. A tiny volume of tissue, a few microns in diameter, is thereby photodisrupted at the laser focus. A computer-controlled scanning system directs the focused laser beam throughout a three-dimensional pattern to produce an incision."

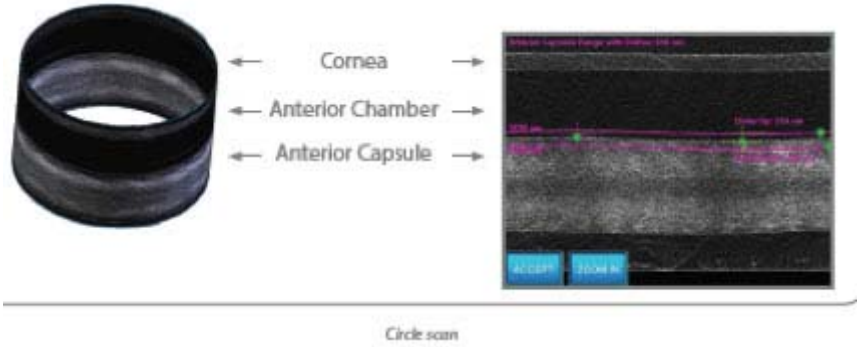
339. The LenSx has an imaging device configured to acquire image data of at least a portion of the lens. Upon information and belief, the LenSx uses a 3D spectral domain OCT imaging assembly. For example, Alcon has stated that its OCT imaging assembly is "a low power visible wavelength light source that is scanned throughout the transparent structures of the anterior chamber of the eye."

340. The LenSx has a control system operably coupled to the laser system and configured to operate the imaging device to generate image data for the patient's crystalline lens. For example, Alcon has stated that in the LenSx, "a computer monitors and controls the beam energy, repetition rate, safety shutters, footswitch,

laser diagnostics, the position of the scanners and the position of the scanning objective lens." Upon information and belief, the LenSx uses its OCT imaging assembly to generate what Alcon refers to as a circle scan. For example, Alcon has illustrated a circle scan as follows:



The circle scan provides an image of the patient's crystalline lens. For example, Alcon has shown an image of a circle scan as follows:




341. The LenSx has a control system operably coupled to the laser system and configured to process the image data to determine an anterior capsule incision scanning pattern for scanning a focal zone of the laser beam for performing an

anterior capsule incision. For example, Alcon has stated that the LenSx "includes an optical coherence tomography (OCT) based imaging device that assists in localizing specific target locations." Alcon has also stated that a "[c]ircle scan OCT image of the lens and capsule is displayed [on] the top right area of the Surgical Display. The circle scan is performed along the Capsule Pattern diameter as defined on the video microscope image of the eye." Alcon has also stated that "[t]he Capsule Pattern is used to perform an anterior capsulotomy of the crystalline lens." Alcon has also stated that "[t]he surgical effect is produced by scanning thousands of individual pulses" and the location of those pulses "is controlled by moving the focus of the laser beam to the desired surgical target location. A computer-controlled scanning system directs the laser beam throughout a three-dimensional pattern to produce an incision."

342. The LenSx has a control system operably coupled to the laser system and configured to operate the laser and the scanning assembly to scan the focal zone of the laser beam in the anterior capsule incision scanning pattern to perform the anterior capsule incision, wherein positioning of the focal zone is determined in part by the control system based on the image data. For example, Alcon has stated that the LenSx "includes an optical coherence tomography (OCT) based imaging device that assists in localizing specific target locations." Alcon has also stated that a "[c]ircle scan OCT image of the lens and capsule is displayed [on] the top right area

of the Surgical Display. The circle scan is performed along the Capsule Pattern diameter as defined on the video microscope image of the eye." Alcon has also stated that "[t]he Capsule Pattern is used to perform an anterior capsulotomy of the crystalline lens." Alcon has also stated that "[t]he surgical effect is produced by scanning thousands of individual pulses" and the location of those pulses "is controlled by moving the focus of the laser beam to the desired surgical target location. A computer-controlled scanning system directs the laser beam throughout a three-dimensional pattern to produce an incision."

343. Alcon's manufacture, use, offer to sell, and sale of the LenSx in the United States has infringed and continues to infringe the '648 patent under 35 U.S.C. § 271(a).

344. Alcon's customers in the United States have directly infringed and continue to directly infringe the '648 patent by using the LenSx for its FDA-approved indications (including anterior capsulotomy).

345. Alcon has actively induced and continues to actively induce infringement of the '648 patent by encouraging its customers to use the LenSx, with specific intent, knowledge and/or willful blindness that the induced acts constitute patent infringement, in violation of 35 U.S.C. § 271(b). Upon information and belief, Alcon's inducing acts include marketing the LenSx, supporting the ongoing use of the LenSx by providing consumables such as the LenSx SoftFit Patient Interface for

use with the LenSx, and providing installation, maintenance, service, and/or repair of the LenSx. Alcon has stated that the "LenSx® Laser requires use of proprietary sterile disposable Patient Interfaces." Alcon has further stated "[t]he consumables used in conjunction with ALCON® instrument products constitute a complete surgical system." Alcon's inducing acts also include providing instructions to use the LenSx for its FDA-approved indications (including anterior capsulotomy) in an infringing manner, including providing the information relevant to each of the claim limitations that is referenced and/or quoted in the paragraphs above. Additionally, upon information and belief, Alcon has published and provided product documentation and educational materials that instruct and encourage its customers to use the LenSx for its FDA-approved indications in an infringing manner, with knowledge and/or with willful blindness that the induced acts constitute patent infringement. Moreover, upon information and belief, Alcon warns customers in the Operator's Manual for the LenSx that its "instructions must be observed."

346. Alcon has known of the '648 patent and of its infringement prior to this litigation, and it is further on notice through this lawsuit. Alcon's knowledge of the '648 patent, together with its knowledge about the design and operation of the LenSx, gave Alcon knowledge that its customers' use of the LenSx constitutes patent infringement, because the language of the '648 patent claims plainly reads upon the LenSx. Alcon's knowledge of infringement is also demonstrated by its receipt of

correspondence and infringement charts specifically identifying its infringing acts, the allegations contained in the original complaint, its prior knowledge of the patent and the subject matter claimed, its statements touting the advantages of features that it knew to be patented, and the affirmative measures it took to address its risk of liability for patent infringement. Alcon's specific intent to induce infringement is demonstrated by its continued infringing acts despite this knowledge.

347. Alcon has contributed to and continues to contribute to infringement of the '648 patent by offering to sell and selling the LenSx that its customers use to infringe the patent, in violation of 35 U.S.C. § 271(c). Alcon does so knowing that the LenSx constitutes a material part of the invention, and that it is especially made and especially adapted for use in an infringement of the patent. The LenSx is and consumables are designed and configured so that the customer will use the system to perform FDA-approved anterior capsulotomy in a manner that infringes the patent, including as set forth limitation-by-limitation in the paragraphs above. The customer necessarily infringes the patent when it uses the LenSx for the FDA-approved indicated use in the creation of an anterior capsulotomy during cataract surgery. The LenSx includes a separate and distinct mode of operation, the "Capsule" Program, that performs anterior capsulotomy in an infringing manner, and for which there is no substantial noninfringing use. Using the LenSx for the FDA-approved indication of anterior capsulotomy during cataract surgery is not a

staple article or commodity of commerce, and does not have a substantial noninfringing use. Upon information and belief, customers have no practical ability to modify or use the LenSx for the indicated use of anterior capsulotomy in a way to avoid infringement of the '648 patent.

348. Alcon has infringed and continues to infringe the '648 patent by supplying or causing to be supplied in or from the United States, without authority, all or a substantial portion of the components of the patented invention, including but not limited to the LenSx (in either assembled or unassembled form), parts and software for the LenSx, and consumables such as the LenSx SoftFit Patient Interface, where such components are uncombined in whole or in part, in such a manner as to actively induce the combination of such components outside of the United States in a manner that would infringe the patent if such combination occurred within the United States, in violation of 35 U.S.C. § 271(f)(1). The components include but are not limited to the hardware and software components that are used to enable and perform the "Capsule" Program that performs the FDA-approved anterior capsulotomy in an infringing manner. Alcon's inducing acts include instructions on assembly and use of the LenSx and consumables for use with the LenSx, marketing the LenSx, and providing installation, maintenance, service, and/or repair of the LenSx. Alcon has stated that the "LenSx® Laser requires use of proprietary sterile disposable Patient Interfaces." Alcon has further stated "[t]he consumables used in

conjunction with ALCON® instrument products constitute a complete surgical system." Additionally, upon information and belief, Alcon publishes and provides product documentation and educational materials that instruct and encourage its customers to use the LenSx for its FDA-approved indications for use and in an infringing manner, including providing the information relevant to each of the claim limitations that is referenced and/or quoted in the paragraphs above, with knowledge and/or with willful blindness that the induced acts constitute patent infringement.

349. Alcon has infringed and continues to infringe the '648 patent by supplying or causing to be supplied in or from the United States, without authority, at least one component of the patented invention, including but not limited to the LenSx (in either assembled or unassembled form), and parts and software for the LenSx, that is especially made or especially adapted for use in the invention and not a staple article or commodity of commerce suitable for substantial noninfringing use, where such component is uncombined in whole or in part, knowing that such component is so made or adapted and intending that such component(s) will be combined outside of the United States in a manner that infringe the patent if such combination occurred within the United States, in violation of 35 U.S.C. § 271(f)(2). The components include but are not limited to the hardware and software components that are used to enable and perform the "Capsule" Program that performs the FDA-approved anterior capsulotomy in an infringing manner,

including as set forth limitation-by-limitation in the paragraphs above, and for which there are no substantial noninfringing uses. Using the LenSx for the FDA-approved indicated uses of anterior capsulotomy during cataract surgery is not a staple article or commodity of commerce, and does not have a substantial noninfringing use. Upon information and belief, customers have no practical ability to modify or use the LenSx or the components thereto for the indicated uses of anterior capsulotomy in a way to avoid infringement of the '648 patent.

350. Alcon is not licensed under the '648 patent.

351. The marking requirement of 35 U.S.C. § 287(a) has been satisfied through J&J Vision's marking of the Catalys® Precision Laser System.

352. J&J Vision has been damaged and will continue to be damaged by Alcon's infringement of the '648 patent.

353. J&J Vision has suffered and will continue to suffer irreparable harm unless and until Alcon's infringing activities are enjoined by this Court. J&J Vision does not have an adequate remedy at law.

354. Despite Alcon's knowledge of the '648 patent and of its infringing activities, Alcon has continued to manufacture, use, offer to sell, and/or sell the LenSx. Alcon's infringement of the '648 patent has been willful, making this an exceptional case and entitling J&J Vision to an award of increased damages and attorneys' fees.

## COUNT XIII
## Infringement of the '903 Patent

355. J&J Vision incorporates by reference the allegations set forth in paragraphs 1 through 354 as though fully set forth herein.

356. Alcon has directly and indirectly infringed, and continues to infringe, literally or under the doctrine of equivalents, one or more claims of the '903 patent, by making, using, offering to sell, and/or selling the LenSx and consumables in the United States, and supplying or causing to be supplied the LenSx and consumables from the United States for use abroad, without authority or license, in violation of 35 U.S.C. § 271.

357. For example, the LenSx meets each limitation of claim 1 of the '903 patent, which claims:

> A laser surgical system for making incisions in ocular tissues during a cataract surgical procedure, the system comprising:
>
> > a laser system comprising a scanning assembly, a laser operable to generate a laser beam configured to incise ocular tissue;
> >
> > an imaging device configured to acquire image data from locations distributed throughout a volume of a crystalline lens of the patient and construct one or more images of the patient's eye tissues from the image data, wherein the one or more images comprise an image of at least a portion of the crystalline lens; and
> >
> > a control system operably coupled to the laser system and configured to:

operate the imaging device to generate image data of a continuous depth profile of the volume of the patient's crystalline lens;

identify one or more boundaries of the one or more tissue structures of the crystalline lens based at least in part on the image data;

process the image data to determine a lens fragmentation treatment region of the lens of the eye based at least in part upon the one or more boundaries, the lens fragmentation treatment region comprising a posterior cutting boundary located anterior to the posterior capsule of the lens;

process the image data to determine a lens fragmentation scanning pattern for scanning a focal zone of the laser beam for performing lens fragmentation, the lens fragmentation pattern comprising a scanning pattern at a plurality of depths within the lens fragmentation treatment region; and

operate the laser and the scanning assembly to scan the focal zone of the laser beam in the lens fragmentation scanning pattern consecutively at each of the plurality of depths within the lens fragmentation treatment region,

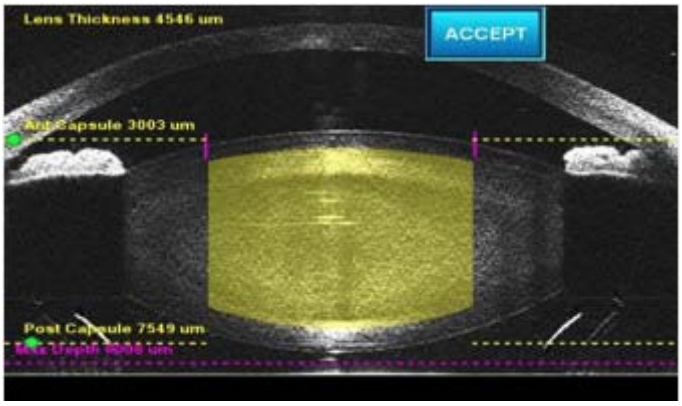
wherein positioning of the focal zone is guided by the control system based on the image data.

358. The LenSx is a laser surgical system for making incisions in ocular tissues during a cataract surgical procedure. For example, Alcon has stated that "[t]he LenSx® Laser is indicated for use in patients undergoing cataract surgery … The LenSx® Laser creates incisions through tightly focused femtosecond laser pulses that cut tissue with micron-scale precision."

359. The LenSx has a laser system comprising a scanning assembly, a laser operable to generate a laser beam configured to incise ocular tissue. For example, Alcon has stated that the LenSx has "an ophthalmic surgical laser which uses focused femtosecond laser pulses to create incisions and to separate tissue within the lens capsule, crystalline lens, and the cornea. A femtosecond light pulse[] is focused into a sufficiently small spot in order to achieve photodisruption of the tissue inside the focus. A tiny volume of tissue, a few microns in diameter, is thereby photodisrupted at the laser focus. A computer-controlled scanning system directs the focused laser beam throughout a three-dimensional pattern to produce an incision."

360. The LenSx has an imaging device configured to acquire image data from locations distributed throughout a volume of a crystalline lens of the patient and construct one or more images of the patient's eye tissues from the image data, wherein the one or more images comprise an image of at least a portion of the crystalline lens. Upon information and belief, the LenSx uses a 3D spectral domain OCT imaging device. For example, Alcon has stated that "[t]he OCT consists of a low power visible wavelength light source that is scanned throughout the transparent structures of the anterior chamber of the eye. Light scattered from ocular structures and surfaces within the eye is analyzed to produce cross sectional images of the eye's anterior segment. Various sectioned images may be produced, including a wide field line scan of the anterior chamber, magnified cross sections of the cornea at the points

of planned incisions, and circle and line scans of the lens and capsule." Upon information and belief the LenSx uses its OCT imaging assembly to generate what Alcon refers to as a line scan. For example, Alcon has shown an image of a line scan as follows:



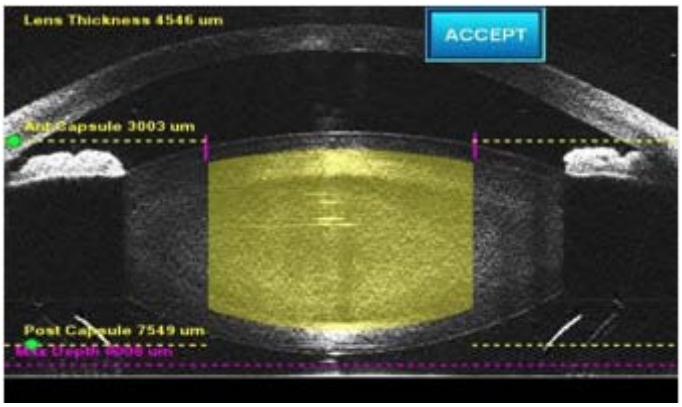

The line scan provides an image of at least a portion of the crystalline lens.

361. The LenSx has a control system operably coupled to the laser system and configured to operate the imaging device to generate image data of a continuous depth profile of the volume of the patient's crystalline lens. Upon information and belief, the LenSx uses a 3D spectral domain OCT imaging device. For example, Alcon has stated that its OCT imaging assembly is "a low power visible wavelength light source that is scanned throughout the transparent structures of the anterior chamber of the eye." Upon information and belief, the line scan depicted above shows a continuous depth profile of the volume of the patient's crystalline lens.

362. The LenSx has a control system operably coupled to the laser system and configured to identify one or more boundaries of the one or more tissue

structures of the crystalline lens based at least in part on the image data. For example, with respect to the above image of a line scan, Alcon has stated that "[t]he Lens treatment volume is represented by a yellow semi-transparent solid. The upper arc of the solid matches the programmed Anterior Lens Curvature and the lower arc corresponds to the programmed Posterior Lens Curvature."

363. The LenSx has a control system operably coupled to the laser system and configured to process the image data to determine a lens fragmentation treatment region of the lens of the eye based at least in part upon the one or more boundaries, the lens fragmentation treatment region comprising a posterior cutting boundary located anterior to the posterior capsule of the lens. For example, Alcon has stated that "[a] computer monitors and controls the beam energy, repetition rate, safety shutters, footswitch, laser diagnostics, the position of the scanners and the position of the scanning objective lens." Alcon has also stated that the LenSx "includes an optical coherence tomography (OCT) based imaging device that assists in localizing specific target locations." Upon information and belief, the LenSx displays a treatment region to the user. For example, Alcon has shown an image of a treatment region as follows:




Alcon has stated that "[t]he Lens treatment volume is represented by a yellow semi-transparent solid. The upper arc of the solid matches the programmed Anterior Lens Curvature and the lower arc corresponds to the programmed Posterior Lens Curvature." Alcon has stated that the "yellow solid" corresponds to the "volume of the Lens Pattern." Alcon has described the "Lens Pattern" as "used to perform phacofragmentation of the crystalline lens."

364. The LenSx has a control system operably coupled to the laser system and configured to process the image data to determine a lens fragmentation scanning pattern for scanning a focal zone of the laser beam for performing lens fragmentation, the lens fragmentation pattern comprising a scanning pattern at a plurality of depths within the lens fragmentation treatment region. For example, Alcon has stated that the "Lens Pattern is used to perform phacofragmentation of the crystalline lens. Lens Patterns may be specified as Chop, Cylinder or combined Chop and Cylinder patterns." Alcon has also stated that these "Lens phacofragmentation patterns are programmed to cut from at least 500 microns above the posterior capsule

to at least 500 microns below the anterior capsule." Alcon has stated that the phacofragmentation "treatment pattern begins at the programmed posterior depth as an initial x-shaped scan is complete." Alcon has stated that the incision of the treatment pattern at the programmed posterior depth is "followed by successive x-shaped scans created a few microns apart." Alcon has also stated that these "cuts proceed from the deepest point and move anteriorly, ending below the anterior capsule."

365. The LenSx has a control system operably coupled to the laser system and configured to operate the laser and the scanning assembly to scan the focal zone of the laser beam in the lens fragmentation scanning pattern consecutively at each of the plurality of depths within the lens fragmentation treatment region. For example, Alcon has stated that the phacofragmentation "treatment pattern begins at the programmed posterior depth as an initial x-shaped scan is complete." Alcon has stated that the incision of the treatment pattern at the programmed posterior depth is "followed by successive x-shaped scans created a few microns apart." Alcon has also stated that these "cuts proceed from the deepest point and move anteriorly, ending below the anterior capsule."

366. The LenSx has the above-described system wherein the positioning of the focal zone is guided by the control system based on the image data. For example, Alcon has stated that the LenSx "includes an optical coherence tomography (OCT)

based imaging device that assists in localizing specific target locations." Alcon has also stated that "[l]ens phacofragmentation patterns are programmed to cut from at least 500 microns above the posterior capsule to at least 500 microns below the anterior capsule."

367. Alcon's manufacture, use, offer to sell, and sale of the LenSx in the United States has infringed and continues to infringe the '903 patent under 35 U.S.C. § 271(a).

368. Alcon's customers in the United States have directly infringed and continue to directly infringe the '903 patent by using the LenSx for its FDA-approved indications (including laser phacofragmentation).

369. Alcon has actively induced and continues to actively induce infringement of the '903 patent by encouraging its customers to use the LenSx, with specific intent, knowledge and/or willful blindness that the induced acts constitute patent infringement, in violation of 35 U.S.C. § 271(b). Upon information and belief, Alcon's inducing acts include marketing the LenSx, supporting the ongoing use of the LenSx by providing consumables such as the LenSx SoftFit Patient Interface for use with the LenSx, and providing installation, maintenance, service, and/or repair of the LenSx. Alcon has stated that the "LenSx® Laser requires use of proprietary sterile disposable Patient Interfaces." Alcon has further stated "[t]he consumables used in conjunction with ALCON® instrument products constitute a complete

surgical system." Alcon's inducing acts also include providing instructions to use the LenSx for its FDA-approved indications (including laser phacofragmentation) in an infringing manner, including providing the information relevant to each of the claim limitations that is referenced and/or quoted in the paragraphs above. Additionally, upon information and belief, Alcon has published and provided product documentation and educational materials that instruct and encourage its customers to use the LenSx for its FDA-approved indications in an infringing manner, with knowledge and/or with willful blindness that the induced acts constitute patent infringement. Moreover, upon information and belief, Alcon warns customers in the Operator's Manual for the LenSx that its "instructions must be observed."

370. Alcon has known of the '903 patent and of its infringement prior to this litigation, and it is further on notice through this lawsuit. Alcon's knowledge of the '903 patent, together with its knowledge about the design and operation of the LenSx, gave Alcon knowledge that its customers' use of the LenSx constitutes patent infringement, because the language of the '903 patent claims plainly reads upon the LenSx. Alcon's knowledge of infringement is also demonstrated by its receipt of correspondence and infringement charts specifically identifying its infringing acts, the allegations contained in the original complaint, its prior knowledge of the patent and the subject matter claimed, its statements touting the advantages of features that

it knew to be patented, and the affirmative measures it took to address its risk of liability for patent infringement. Alcon's specific intent to induce infringement is demonstrated by its continued infringing acts despite this knowledge.

371. Alcon has contributed to and continues to contribute to infringement of the '903 patent by offering to sell and selling the LenSx that its customers use to infringe the patent, in violation of 35 U.S.C. § 271(c). Alcon does so knowing that the LenSx constitutes a material part of the invention, and that it is especially made and especially adapted for use in an infringement of the patent. The LenSx is designed and configured so that the customer will use the system to perform FDA-approved lens fragmentation in a manner that infringes the patent, including as set forth limitation-by-limitation in the paragraphs above. The customer necessarily infringes the patent when it uses the LenSx for the FDA-approved indicated use of a laser phacofragmentation during cataract surgery. The LenSx includes a separate and distinct mode of operation, the "Lens" Program, that performs laser phacofragmentation in an infringing manner, and for which there is no substantial noninfringing use. Using the LenSx for the FDA-approved indication of laser phacofragmentation during cataract surgery is not a staple article or commodity of commerce, and does not have a substantial noninfringing use. Upon information and belief, customers have no practical ability to modify or use the LenSx for the

indicated use of laser phacofragmentation in a way to avoid infringement of the '903 patent.

372. Alcon has infringed and continues to infringe the '903 patent by supplying or causing to be supplied in or from the United States, without authority, all or a substantial portion of the components of the patented invention, including but not limited to the LenSx (in either assembled or unassembled form), parts and software for the LenSx, and consumables such as the LenSx SoftFit Patient Interface, where such components are uncombined in whole or in part, in such a manner as to actively induce the combination of such components outside of the United States in a manner that would infringe the patent if such combination occurred within the United States, in violation of 35 U.S.C. § 271(f)(1). The components include but are not limited to the hardware and software components that are used to enable and perform the "Lens" Program that performs the FDA-approved laser phacofragmentation in an infringing manner. Alcon's inducing acts include instructions on assembly and use of the LenSx and consumables for use with the LenSx, marketing the LenSx, and providing installation, maintenance, service, and/or repair of the LenSx. Alcon has stated that the "LenSx® Laser requires use of proprietary sterile disposable Patient Interfaces." Alcon has further stated "[t]he consumables used in conjunction with ALCON® instrument products constitute a complete surgical system." Additionally, upon information and belief, Alcon

publishes and provides product documentation and educational materials that instruct and encourage its customers to use the LenSx for its FDA-approved indications for use and in an infringing manner, including providing the information relevant to each of the claim limitations that is referenced and/or quoted in the paragraphs above, with knowledge and/or with willful blindness that the induced acts constitute patent infringement.

373. Alcon has infringed and continues to infringe the '903 patent by supplying or causing to be supplied in or from the United States, without authority, at least one component of the patented invention, including but not limited to the LenSx (in either assembled or unassembled form), and parts and software for the LenSx, that is especially made or especially adapted for use in the invention and not a staple article or commodity of commerce suitable for substantial noninfringing use, where such component is uncombined in whole or in part, knowing that such component is so made or adapted and intending that such component(s) will be combined outside of the United States in a manner that infringe the patent if such combination occurred within the United States, in violation of 35 U.S.C. § 271(f)(2). The components include but are not limited to the hardware and software components that are used to enable and perform the "Lens" Program that performs the FDA-approved laser phacofragmentation in an infringing manner, including as set forth limitation-by-limitation in the paragraphs above, and for which there are no

substantial noninfringing uses. Using the LenSx for the FDA-approved indicated use of laser phacofragmentation during cataract surgery is not a staple article or commodity of commerce, and does not have a substantial noninfringing use. Upon information and belief, customers have no practical ability to modify or use the LenSx or the components thereto for the indicated use of laser phacofragmentation in a way to avoid infringement of the '903 patent.

374. Alcon is not licensed under the '903 patent.

375. The marking requirement of 35 U.S.C. § 287(a) has been satisfied through J&J Vision's marking of the Catalys® Precision Laser System.

376. J&J Vision has been damaged and will continue to be damaged by Alcon's infringement of the '903 patent.

377. J&J Vision has suffered and will continue to suffer irreparable harm unless and until Alcon's infringing activities are enjoined by this Court. J&J Vision does not have an adequate remedy at law.

378. Despite Alcon's knowledge of the '903 patent and of its infringing activities, Alcon has continued to manufacture, use, offer to sell, and/or sell the LenSx. Alcon's infringement of the '903 patent has been willful, making this an exceptional case and entitling J&J Vision to an award of increased damages and attorneys' fees.

## COUNT XIV
## Infringement of the '904 Patent

379. J&J Vision incorporates by reference the allegations set forth in paragraphs 1 through 378 as though fully set forth herein.

380. Alcon has directly and indirectly infringed, and continues to infringe, literally or under the doctrine of equivalents, one or more claims of the '904 patent, by making, using, offering to sell, and/or selling the LenSx and consumables in the United States, and supplying or causing to be supplied the LenSx and consumables from the United States for use abroad, without authority or license, in violation of 35 U.S.C. § 271.

381. For example, the LenSx meets each limitation of claim 1 of the '904 patent, which claims:

> A laser surgical system for making incisions in ocular tissues during a cataract surgical procedure, the system comprising:
>
> > a laser system comprising a scanning assembly, a laser operable to generate a laser beam configured to incise ocular tissue;
> >
> > an imaging device configured to acquire image data from locations distributed throughout a volume of a crystalline lens of the patient and construct one or more images of the patient's eye tissues from the image data, wherein the one or more images comprise an image of at least a portion of the crystalline lens; and
> >
> > a control system operably coupled to the laser system and configured to:

operate the imaging device to generate image data of a continuous depth profile of the volume of the patient's crystalline lens;

identify one or more boundaries of crystalline lens based at least in part on the image data;

process the image data to determine a lens fragmentation scanning pattern for scanning a focal zone of the laser beam for performing lens fragmentation, the lens fragmentation scanning pattern comprising a planar pattern at a first depth and at one or more additional depths anterior to the first depth;

process the image data to determine a lens fragmentation treatment region of the lens of the eye based at least in part upon the one or more boundaries;

operate the laser and the scanning assembly to scan the focal zone of the laser beam within the lens fragmentation treatment region in the planar pattern at the first depth and to subsequently direct the focal zone of the laser beam at the one or more additional depths anterior to the first depth, thereby effecting patterned laser cutting of lens tissue,

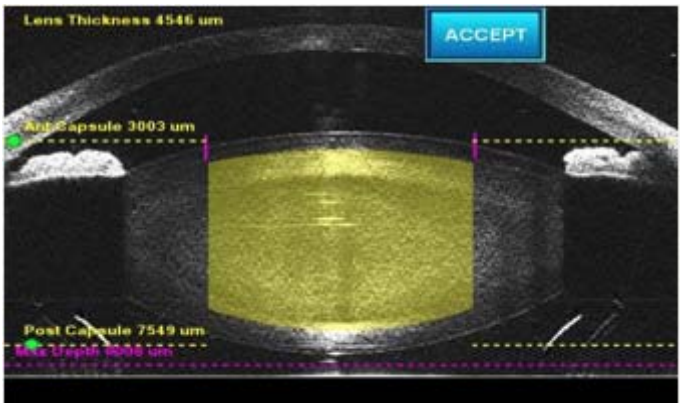
wherein positioning of the focal zone is guided by the control system based on the image data.

382. The LenSx is a laser surgical system for making incisions in ocular tissues during a cataract surgical procedure. For example, Alcon has stated that "[t]he LenSx® Laser is indicated for use in patients undergoing cataract surgery … The LenSx® Laser creates incisions through tightly focused femtosecond laser pulses that cut tissue with micron-scale precision."

383. The LenSx has a laser system comprising a scanning assembly, a laser operable to generate a laser beam configured to incise ocular tissue. For example, Alcon has stated that the LenSx has "an ophthalmic surgical laser which uses focused femtosecond laser pulses to create incisions and to separate tissue within the lens capsule, crystalline lens, and the cornea. A femtosecond light pulse[] is focused into a sufficiently small spot in order to achieve photodisruption of the tissue inside the focus. A tiny volume of tissue, a few microns in diameter, is thereby photodisrupted at the laser focus. A computer-controlled scanning system directs the focused laser beam throughout a three-dimensional pattern to produce an incision."

384. The LenSx has an imaging device configured to acquire image data from locations distributed throughout a volume of a crystalline lens of the patient and construct one or more images of the patient's eye tissues from the image data, wherein the one or more images comprise an image of at least a portion of the crystalline lens. Upon information and belief, the LenSx uses a 3D spectral domain OCT imaging device. For example, Alcon has stated that "[t]he OCT consists of a low power visible wavelength light source that is scanned throughout the transparent structures of the anterior chamber of the eye. Light scattered from ocular structures and surfaces within the eye is analyzed to produce cross sectional images of the eye's anterior segment. Various sectioned images may be produced, including a wide field line scan of the anterior chamber, magnified cross sections of the cornea at the points

of planned incisions, and circle and line scans of the lens and capsule." Upon information and belief the LenSx uses its OCT imaging assembly to generate what Alcon refers to as a line scan. Alcon has shown an image of a line scan as follows:




The line scan provides an image of at least a portion of the crystalline lens.

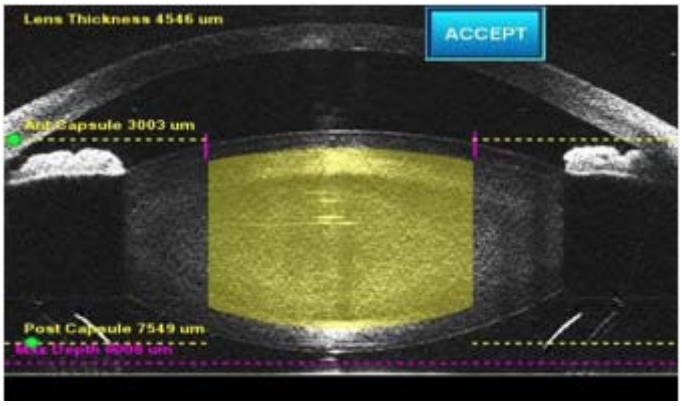
385. The LenSx has a control system operably coupled to the laser system and configured to operate the imaging device to generate image data of a continuous depth profile of the volume of the patient's crystalline lens. Upon information and belief, the LenSx uses a 3D spectral domain OCT imaging device. For example, Alcon has stated that its OCT imaging assembly is "a low power visible wavelength light source that is scanned throughout the transparent structures of the anterior chamber of the eye." Upon information and belief, the line scan depicted above shows a continuous depth profile of the volume of the patient's crystalline lens.

386. The LenSx has a control system operably coupled to the laser system and configured to identify one or more boundaries of the crystalline lens based at least in part on the image data. For example, with respect to the above image of a

line scan, Alcon has stated that "[t]he Lens treatment volume is represented by a yellow semi-transparent solid. The upper arc of the solid matches the programmed Anterior Lens Curvature and the lower arc corresponds to the programmed Posterior Lens Curvature."

387. The LenSx has a control system operably coupled to the laser system and configured to process the image data to determine a lens fragmentation scanning pattern for scanning a focal zone of the laser beam for performing lens fragmentation, the lens fragmentation scanning pattern comprising a planar pattern at a first depth and at one or more additional depths anterior to the first depth. For example, Alcon has stated that the "Lens Pattern is used to perform phacofragmentation of the crystalline lens. Lens Patterns may be specified as Chop, Cylinder or combined Chop and Cylinder patterns." Alcon has also stated that these "Lens phacofragmentation patterns are programmed to cut from at least 500 microns above the posterior capsule to at least 500 microns below the anterior capsule." Alcon has stated that the phacofragmentation "treatment pattern begins at the programmed posterior depth as an initial x-shaped scan is complete." Alcon has stated that the incision of the treatment pattern at the programmed posterior depth is "followed by successive x-shaped scans created a few microns apart." Alcon has also stated that these "cuts proceed from the deepest point and move anteriorly, ending below the anterior capsule."

388. The LenSx has a control system operably coupled to the laser system and configured to process the image data to determine a lens fragmentation treatment region of the lens of the eye based at least in part upon the one or more boundaries. For example, Alcon has stated that "[a] computer monitors and controls the beam energy, repetition rate, safety shutters, footswitch, laser diagnostics, the position of the scanners and the position of the scanning objective lens." Alcon has also stated that the LenSx "includes an optical coherence tomography (OCT) based imaging device that assists in localizing specific target locations." Upon information and belief the LenSx uses its OCT imaging assembly to generate what Alcon refers to as a line scan. Alcon has shown an image of a line scan as follows:




Alcon has stated that "[t]he Lens treatment volume is represented by a yellow semi-transparent solid. The upper arc of the solid matches the programmed Anterior Lens Curvature and the lower arc corresponds to the programmed Posterior Lens Curvature." Upon information and belief the treatment volume includes the lens of the eye.

389. The LenSx has a control system operably coupled to the laser system and configured to operate the laser and the scanning assembly to scan the focal zone of the laser beam within the lens fragmentation treatment region in the planar pattern at the first depth and to subsequently direct the focal zone of the laser beam at the one or more additional depths anterior to the first depth, thereby effecting patterned laser cutting of lens tissue. For example, Alcon has stated that the "Lens Pattern is used to perform phacofragmentation of the crystalline lens. Lens Patterns may be specified as Chop, Cylinder or combined Chop and Cylinder patterns." Alcon has also stated that these "Lens phacofragmentation patterns are programmed to cut from at least 500 microns above the posterior capsule to at least 500 microns below the anterior capsule." Alcon has stated that the phacofragmentation "treatment pattern begins at the programmed posterior depth as an initial x-shaped scan is complete." Alcon has stated that the incision of the treatment pattern at the programmed posterior depth is "followed by successive x-shaped scans created a few microns apart." Alcon has also stated that these "cuts proceed from the deepest point and move anteriorly, ending below the anterior capsule."

390. The LenSx has the above-described system wherein positioning of the focal zone is guided by the control system based on the image data. For example, Alcon has stated that the LenSx "includes an optical coherence tomography (OCT) based imaging device that assists in localizing specific target locations." Alcon has

also stated that "[l]ens phacofragmentation patterns are programmed to cut from at least 500 microns above the posterior capsule to at least 500 microns below the anterior capsule."

391. Alcon's manufacture, use, offer to sell, and sale of the LenSx in the United States has infringed and continues to infringe the '904 patent under 35 U.S.C. § 271(a).

392. Alcon's customers in the United States have directly infringed and continue to directly infringe the '904 patent by using the LenSx for its FDA-approved indications (including laser phacofragmentation).

393. Alcon has actively induced and continues to actively induce infringement of the '904 patent by encouraging its customers to use the LenSx, with specific intent, knowledge and/or willful blindness that the induced acts constitute patent infringement, in violation of 35 U.S.C. § 271(b). Upon information and belief, Alcon's inducing acts include marketing the LenSx, supporting the ongoing use of the LenSx by providing consumables such as the LenSx SoftFit Patient Interface for use with the LenSx, and providing installation, maintenance, service, and/or repair of the LenSx. Alcon has stated that the "LenSx® Laser requires use of proprietary sterile disposable Patient Interfaces." Alcon has further stated "[t]he consumables used in conjunction with ALCON® instrument products constitute a complete surgical system." Alcon's inducing acts also include providing instructions to use

the LenSx for its FDA-approved indications (including laser phacofragmentation) in an infringing manner, including providing the information relevant to each of the claim limitations that is referenced and/or quoted in the paragraphs above. Additionally, upon information and belief, Alcon has published and provided product documentation and educational materials that instruct and encourage its customers to use the LenSx for its FDA-approved indications in an infringing manner, with knowledge and/or with willful blindness that the induced acts constitute patent infringement. Moreover, upon information and belief, Alcon warns customers in the Operator's Manual for the LenSx that its "instructions must be observed."

394. Alcon has known of the '904 patent and of its infringement prior to this litigation, and it is further on notice through this lawsuit. Alcon's knowledge of the '904 patent, together with its knowledge about the design and operation of the LenSx, gave Alcon knowledge that its customers' use of the LenSx constitutes patent infringement, because the language of the '904 patent claims plainly reads upon the LenSx. Alcon's knowledge of infringement is also demonstrated by its receipt of correspondence and infringement charts specifically identifying its infringing acts, the allegations contained in the original complaint, its prior knowledge of the patent and the subject matter claimed, its statements touting the advantages of features that it knew to be patented, and the affirmative measures it took to address its risk of

liability for patent infringement. Alcon's specific intent to induce infringement is demonstrated by its continued infringing acts despite this knowledge.

395. Alcon has contributed to and continues to contribute to infringement of the '904 patent by offering to sell and selling the LenSx that its customers use to infringe the patent, in violation of 35 U.S.C. § 271(c). Alcon does so knowing that the LenSx constitutes a material part of the invention, and that it is especially made and especially adapted for use in an infringement of the patent. The LenSx is designed and configured so that the customer will use the system to perform FDA-approved lens fragmentation in a manner that infringes the patent, including as set forth limitation-by-limitation in the paragraphs above. The customer necessarily infringes the patent when it uses the LenSx for the FDA-approved indicated use of a laser phacofragmentation during cataract surgery. The LenSx includes a separate and distinct mode of operation, the "Lens" Program, that performs laser phacofragmentation in an infringing manner. Using the LenSx for the FDA-approved indication of laser phacofragmentation during cataract surgery is not a staple article or commodity of commerce, and does not have a substantial noninfringing use. Upon information and belief, customers have no practical ability to modify or use the LenSx for the indicated use of laser phacofragmentation in a way to avoid infringement of the '904 patent.

396. Alcon has infringed and continues to infringe the '904 patent by supplying or causing to be supplied in or from the United States, without authority, all or a substantial portion of the components of the patented invention, including but not limited to the LenSx (in either assembled or unassembled form), parts and software for the LenSx, and consumables such as the LenSx SoftFit Patient Interface, where such components are uncombined in whole or in part, in such a manner as to actively induce the combination of such components outside of the United States in a manner that would infringe the patent if such combination occurred within the United States, in violation of 35 U.S.C. § 271(f)(1). The components include but are not limited to the hardware and software components that are used to enable and perform the "Lens" Program that performs the FDA-approved laser phacofragmentation in an infringing manner. Alcon's inducing acts include instructions on assembly and use of the LenSx and consumables for use with the LenSx, marketing the LenSx, and providing installation, maintenance, service, and/or repair of the LenSx. Alcon has stated that the "LenSx® Laser requires use of proprietary sterile disposable Patient Interfaces." Alcon has further stated "[t]he consumables used in conjunction with ALCON® instrument products constitute a complete surgical system." Additionally, upon information and belief, Alcon publishes and provides product documentation and educational materials that instruct and encourage its customers to use the LenSx for its FDA-approved

indications for use and in an infringing manner, including providing the information relevant to each of the claim limitations that is referenced and/or quoted in the paragraphs above, with knowledge and/or with willful blindness that the induced acts constitute patent infringement.

397. Alcon has infringed and continues to infringe the '904 patent by supplying or causing to be supplied in or from the United States, without authority, at least one component of the patented invention, including but not limited to the LenSx (in either assembled or unassembled form), an parts and software for the LenSx, that is especially made or especially adapted for use in the invention and not a staple article or commodity of commerce suitable for substantial noninfringing use, where such component is uncombined in whole or in part, knowing that such component is so made or adapted and intending that such component(s) will be combined outside of the United States in a manner that infringe the patent if such combination occurred within the United States, in violation of 35 U.S.C. § 271(f)(2). The components include but are not limited to the hardware and software components that are used to enable and perform the "Lens" Program that performs the FDA-approved laser phacofragmentation in an infringing manner, including as set forth limitation-by-limitation in the paragraphs above, and for which there are no substantial noninfringing uses. Using the LenSx for the FDA-approved indicated use of laser phacofragmentation during cataract surgery is not a staple article or

commodity of commerce, and does not have a substantial noninfringing use. Upon information and belief, customers have no practical ability to modify or use the LenSx or the components thereto for the indicated use of laser phacofragmentation in a way to avoid infringement of the '904 patent.

398. Alcon is not licensed under the '904 patent.

399. The marking requirement of 35 U.S.C. § 287(a) has been satisfied through J&J Vision's marking of the Catalys® Precision Laser System.

400. J&J Vision has been damaged and will continue to be damaged by Alcon's infringement of the '904 patent.

401. J&J Vision has suffered and will continue to suffer irreparable harm unless and until Alcon's infringing activities are enjoined by this Court. J&J Vision does not have an adequate remedy at law.

402. Despite Alcon's knowledge of the '904 patent and of its infringing activities, Alcon has continued to manufacture, use, offer to sell, and/or sell the LenSx. Alcon's infringement of the '904 patent has been willful, making this an exceptional case and entitling J&J Vision to an award of increased damages and attorneys' fees.

## COUNT XV
## Infringement of the '356 Patent

403. J&J Vision incorporates by reference the allegations set forth in paragraphs 1 through 402 as though fully set forth herein.

404. Alcon has directly and indirectly infringed, and continues to infringe, literally or under the doctrine of equivalents, one or more claims of the '356 patent, by making, using, offering to sell, and/or selling the LenSx and consumables in the United States, and supplying or causing to be supplied the LenSx and consumables from the United States for use abroad, without authority or license, in violation of 35 U.S.C. § 271.

405. For example, the LenSx meets each limitation of claim 1 of the '356 patent, which claims:

> An optical beam scanning system for incising target tissue in a patient's eye, the optical beam scanning system comprising:
>
> > a laser source configured to deliver a laser beam comprising a plurality of laser pulses, the laser beam being configured to produce optical breakdown and initiate a plasma-mediated process within the target tissue at a focal spot of the laser beam;
> >
> > an Optical Coherence Tomography (OCT) imaging device configured to generate signals that can be used to create an image of eye tissue that includes the cornea of the patient's eye;
> >
> > a delivery system for delivering the laser beam to the target tissue to form a cataract incision;
> >
> > a scanner operable to scan the focal spot of the laser beam to different locations within the patient's eye; and
> >
> > a controller operatively coupled to the laser source, the OCT imaging device and the scanner, the optical beam scanning, the controller programmed to:
> >
> > scan the eye tissue with the OCT device to generate imaging data for the target tissue that includes imaging data for the cornea;

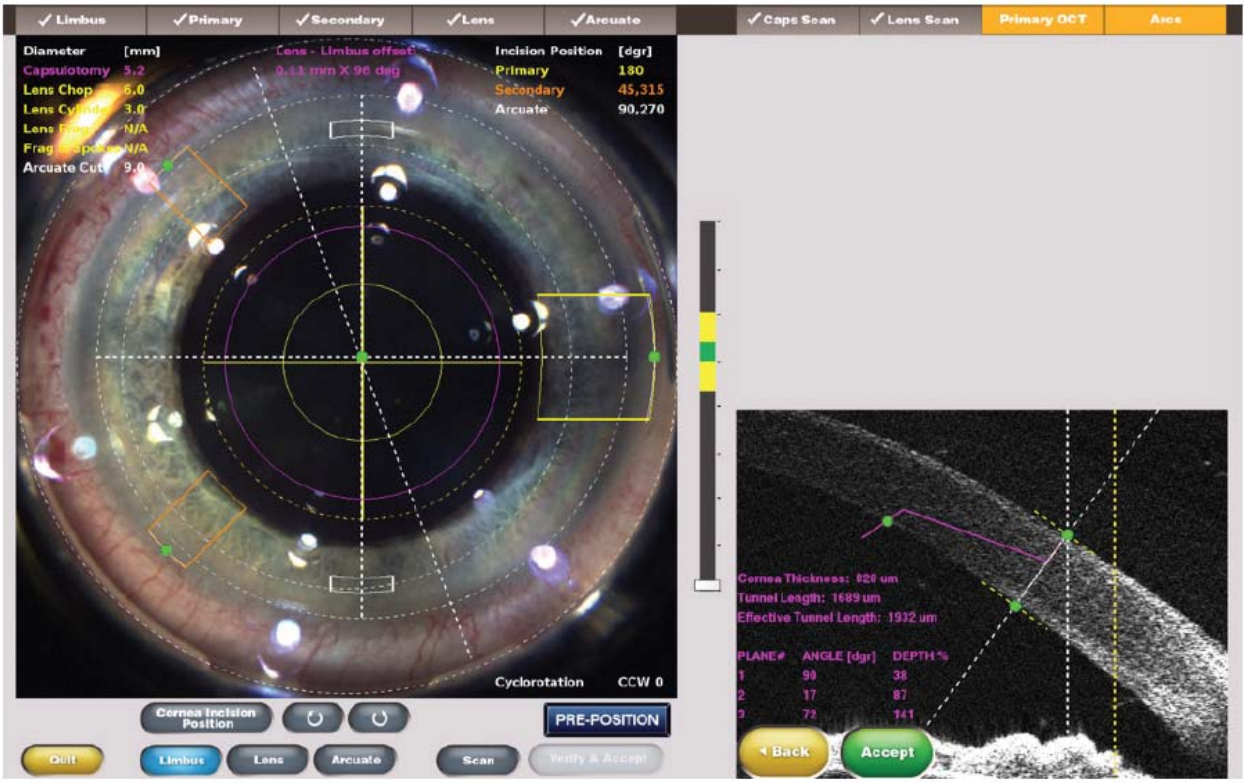
> generate an incision pattern based at least in part on the imaging data, the incision pattern forming one or more relaxation incisions into the cornea, wherein each of the relaxation incision extends in an angular direction for a predetermined length less than a full circle, and wherein at least one of the one or more relaxation incisions is a partially penetrating incision that leaves an un-incised tissue thickness; and
>
> scan the focal spot of the laser beam in the incision pattern, wherein the focal spot of the laser beam is guided based on the imaging data so that the focal spot of the laser beam is scanned from a posterior portion of the eye and proceeding anteriorly.

406. The LenSx has an optical beam scanning system for incising target tissue in a patient's eye. For example, Alcon has stated, "[t]he LenSx® Laser is indicated for use in patients undergoing cataract surgery for removal of the crystalline lens. Intended uses in cataract surgery include an anterior capsulotomy, phacofragmentation, and the creation of single plane and multi-plane arc cuts/incisions in the cornea. … The incision is achieved by contiguously placed microphotodisruptions scanned by a computer-controlled delivery system."

407. The LenSx optical beam scanning system has a laser source configured to deliver a laser beam comprising a plurality of laser pulses, the laser beam being configured to produce optical breakdown and initiate a plasma-mediated process within the target tissue at a focal spot of the laser beam. For example, Alcon has stated, "[a]n all-solid-state laser source produces a kHz pulse train of femtosecond pulses. … Computer controlled scanning mirrors direct the light through a beam expander and through a focusing objective onto a spot at pre-determined depth

within the eye." Alcon has stated that "[t]he light pulse is focused into a sufficiently small spot in order to achieve photodisruption of the tissue inside the focus. A tiny volume of tissue, a few microns in diameter, is photodisrupted at the laser focus. The surgical effect is produced by scanning thousands of individual pulses per second to produce a continuous incision or tissue separation. The location of the tissue photodisruption is controlled by moving the focus of the laser beam to the desired surgical target location." Alcon has also stated that "[t]he LenSx® Laser focuses a beam of low energy pulses of infrared light into the eye. Each pulse of energy creates photodisruption of a micro-volume of tissue at the focus of the beam." Upon information and belief photodisruption produced optical breakdown and initiates a plasma-mediated process within the target tissue.

408. The LenSx optical beam scanning system has an Optical Coherence Tomography (OCT) imaging device configured to generate signals that can be used to create an image of eye tissue that includes the cornea of the patient's eye. Alcon has stated "[a]n optical coherence tomography (OCT) imaging device and a video camera microscope (VM) are used to localize specific targets and to view the patient's eye." For example, Alcon has shown an OCT image as follows, which includes the cornea of the patient's eye:



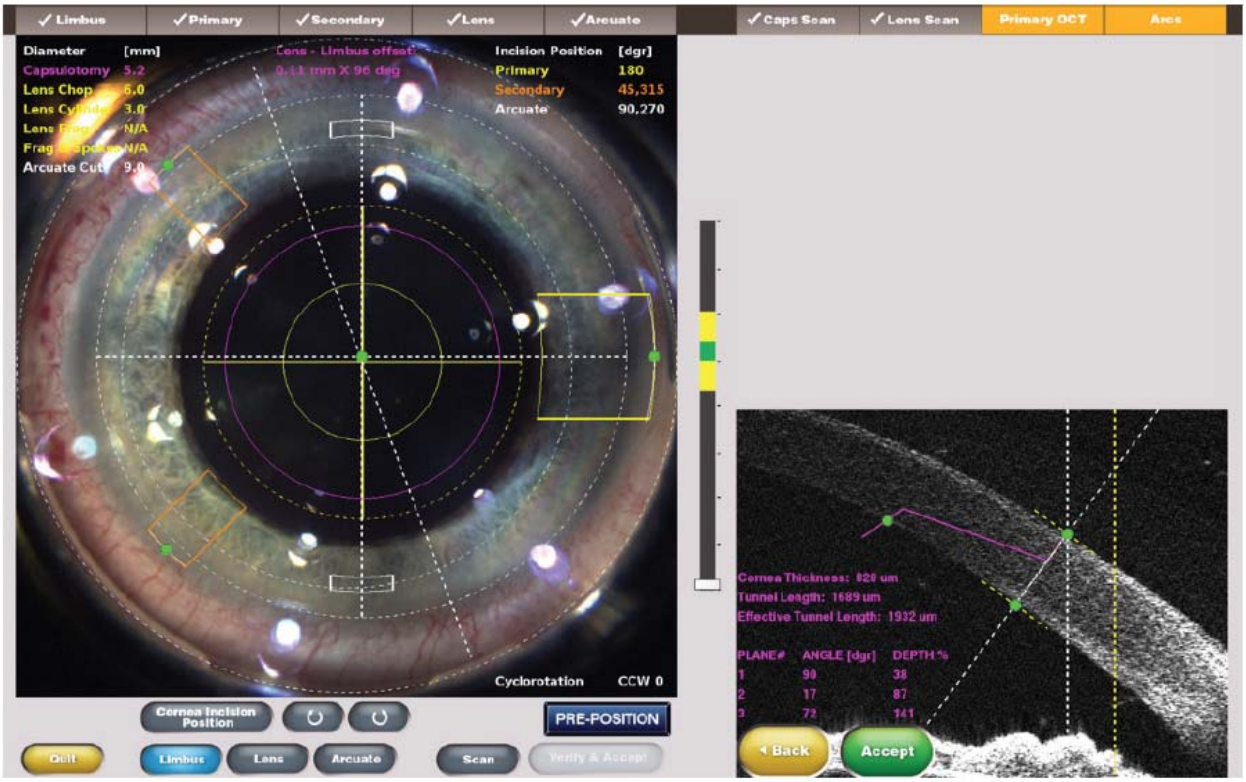

409. The LenSx optical beam scanning system has a delivery system for delivering the laser beam to the target tissue to form a cataract incision. For example, Alcon has stated that "[t]he LenSx® Laser focuses a beam of low energy pulses of infrared light into the eye. … By programming the size, shape and location of the scanning pattern, incisions are created." Alcon has also stated that "[t]he Primary Incision Pattern is used to create corneal incisions. … Secondary Incision Pattern creates a second corneal incision that is used to aid cataract surgery. The Secondary Incision Pattern is similar to the Primary Incision Pattern with the exception that the Secondary Incision Pattern is only a single plane incision located along an arc on the corneal periphery."

410. The LenSx optical beam scanning system has a scanner operable to scan the focal spot of the laser beam to different locations within the patient's eye. For example, Alcon has stated that "[c]omputer controlled scanning mirrors direct the light through a beam expander and through a focusing objective onto a spot at pre-determined depth within the eye."

411. The LenSx optical beam scanning system has a controller operatively coupled to the laser source, the OCT imaging device and the scanner, the optical beam scanning. For example, Alcon has stated that "[a] computer monitors and controls the beam energy, repetition rate, safety shutters, footswitch, laser diagnostics, the position of the scanners and the position of the scanning objective lens." Additionally, the "[c]omputer controlled scanning mirrors direct the light through a beam expander and through a focusing objective onto a spot at pre-determined depth within the eye." Alcon has also stated that "[t]he Surgical Display also includes an optical coherence tomography (OCT) based imaging device that assists in localizing specific target locations."

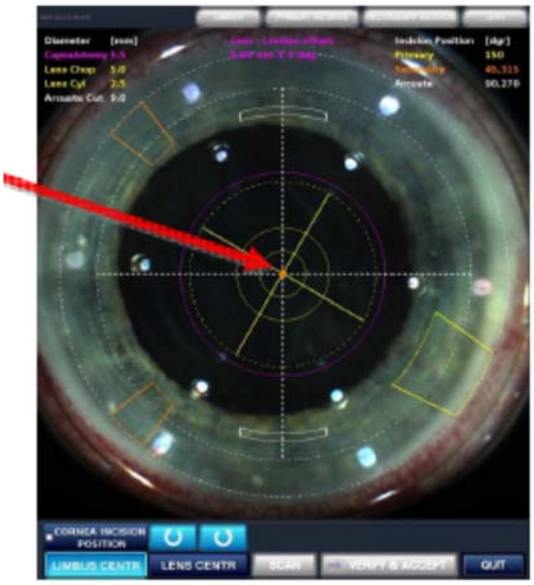
412. The LenSx controller is programmed to scan the eye tissue with the OCT device to generate imaging data for the target tissue that includes imaging data for the cornea. For example, Alcon has stated that "[a]n optical coherence tomography (OCT) imaging device and a video camera microscope (VM) are used to localize specific targets and to view the patient's eye." Additionally, Alcon has

stated that "[v]arious sectioned images may be produced, including a wide field line scan of the anterior chamber, magnified cross sections of the cornea at the points of planned incisions, and circle and line scans of the lens and capsule." For example, Alcon has shown an OCT image as follows, which includes the cornea of the patient's eye:




413. The LenSx controller is programmed to generate an incision pattern based at least in part on the imaging data, the incision pattern forming one or more relaxation incisions into the cornea, wherein each of the relaxation incision extends in an angular direction for a predetermined length less than a full circle, and wherein at least one of the one or more relaxation incisions is a partially penetrating incision

that leaves an un-incised tissue thickness. For example, Alcon has stated that "[a]n optical coherence tomography (OCT) imaging device and a video camera microscope (VM) are used to localize specific targets and to view the patient's eye." Alcon has arcuate corneal cuts as follows:.




The relaxation incisions (white curved boxes) extend in an angular direction for a predetermined length less than a full circle. Alcon has also stated that "[a]rcuate corneal cuts can be made using the Arcuate Incision Pattern. Arcuate Incision Pattern cuts are arc-shaped partial thickness cuts and are made in the cornea at a programmed diameter from the center."

414. The LenSx controller is programmed to scan the focal spot of the laser beam in the incision pattern, wherein the focal spot of the laser beam is guided based on the imaging data so that the focal spot of the laser beam is scanned from a posterior portion of the eye and proceeding anteriorly. For example, Alcon has stated

that "[a]n all-solid-state laser source produces a kHz pulse train of femtosecond pulses. … Computer controlled scanning mirrors direct the light through a beam expander and through a focusing objective onto a spot at pre-determined depth within the eye." Alcon has also stated that "[w]hen scanned, the beam places individual photodisruption sites in a contiguous pattern to form continuous incisions." Furthermore, Alcon has stated "[a]rcuate Incision Pattern cuts start at a user-programmed posterior depth and progress in the anterior direction."

415. Alcon's manufacture, use, offer to sell, and sale of the LenSx in the United States has infringed and continues to infringe the '356 patent under 35 U.S.C. § 271(a).

416. Alcon's customers in the United States have directly infringed and continue to directly infringe the '356 patent by using the LenSx for its FDA-approved indications (including corneal cuts/incisions during cataract surgery).

417. Alcon has actively induced and continues to actively induce infringement of the '356 patent by encouraging its customers to use the LenSx, with specific intent, knowledge and/or willful blindness that the induced acts constitute patent infringement, in violation of 35 U.S.C. § 271(b). Upon information and belief, Alcon's inducing acts include marketing the LenSx, supporting the ongoing use of the LenSx by providing consumables such as the LenSx SoftFit Patient Interface for use with the LenSx, and providing installation, maintenance, service, and/or repair

of the LenSx. Alcon has stated that the "LenSx® Laser requires use of proprietary sterile disposable Patient Interfaces." Alcon has further stated "[t]he consumables used in conjunction with ALCON® instrument products constitute a complete surgical system." Alcon's inducing acts also include providing instructions to use the LenSx for its FDA-approved indications (including corneal cuts/incisions during cataract surgery) in an infringing manner, including providing the information relevant to each of the claim limitations that is referenced and/or quoted in the paragraphs above. Additionally, upon information and belief, Alcon has published and provided product documentation and educational materials that instruct and encourage its customers to use the LenSx for its FDA-approved indications in an infringing manner, with knowledge and/or with willful blindness that the induced acts constitute patent infringement. Moreover, upon information and belief, Alcon warns customers in the Operator's Manual for the LenSx that its "instructions must be observed."

418. Alcon has known of the '356 patent and of its infringement prior to this litigation, and it is further on notice through this lawsuit. Alcon's knowledge of the '356 patent, together with its knowledge about the design and operation of the LenSx, gave Alcon knowledge that its customers' use of the LenSx constitutes patent infringement, because the language of the '356 patent claims plainly reads upon the LenSx. Alcon's knowledge of infringement is also demonstrated by its receipt of

correspondence and infringement charts specifically identifying its infringing acts, the allegations contained in this amended complaint, its prior knowledge of the patent and the subject matter claimed, its statements touting the advantages of features that it knew to be patented, and the affirmative measures it took to address its risk of liability for patent infringement. Alcon's specific intent to induce infringement is demonstrated by its continued infringing acts despite this knowledge.

419. Alcon has infringed and continues to infringe the '356 patent by supplying or causing to be supplied in or from the United States, without authority, all or a substantial portion of the components of the patented invention, including but not limited to the LenSx (in either assembled or unassembled form), parts and software for the LenSx, and consumables such as the LenSx SoftFit Patient Interface, where such components are uncombined in whole or in part, in such a manner as to actively induce the combination of such components outside of the United States in a manner that would infringe the patent if such combination occurred within the United States, in violation of 35 U.S.C. § 271(f)(1). The components include but are not limited to the hardware and software components that are used to enable and perform "Cornea Arcuate," "Cornea Primary," and "Cornea Secondary" Programs for the FDA-approved corneal cuts/incisions during cataract surgery in an infringing manner. Alcon's inducing acts include instructions on assembly and use of the

LenSx and consumables for use with the LenSx, marketing the LenSx, and providing installation, maintenance, service, and/or repair of the LenSx. Alcon has stated that the "LenSx® Laser requires use of proprietary sterile disposable Patient Interfaces." Alcon has further stated "[t]he consumables used in conjunction with ALCON® instrument products constitute a complete surgical system." Additionally, upon information and belief, Alcon publishes and provides product documentation and educational materials that instruct and encourage its customers to use the LenSx for its FDA-approved indications for use and in an infringing manner, including providing the information relevant to each of the claim limitations that is referenced and/or quoted in the paragraphs above, with knowledge and/or with willful blindness that the induced acts constitute patent infringement.

420. Alcon is not licensed under the '356 patent.

421. The marking requirement of 35 U.S.C. § 287(a) has been satisfied through J&J Vision's marking of the Catalys® Precision Laser System.

422. J&J Vision has been damaged and will continue to be damaged by Alcon's infringement of the '356 patent.

423. J&J Vision has suffered and will continue to suffer irreparable harm unless and until Alcon's infringing activities are enjoined by this Court. J&J Vision does not have an adequate remedy at law.

424. Despite Alcon's knowledge of the '356 patent and of its infringing activities, Alcon has continued to manufacture, use, offer to sell, and/or sell the LenSx. Alcon's infringement of the '356 patent has been willful, making this an exceptional case and entitling J&J Vision to an award of increased damages and attorneys' fees.

## COUNT XVI
## Infringement of the '548 Patent

425. J&J Vision incorporates by reference the allegations set forth in paragraphs 1 through 424 as though fully set forth herein.

426. Alcon has directly and indirectly infringed, and continues to infringe, literally or under the doctrine of equivalents, one or more claims of the '548 patent, by making, using, offering to sell, and/or selling the LenSx and consumables in the United States, and supplying or causing to be supplied the LenSx and consumables from the United States for use abroad, without authority or license, in violation of 35 U.S.C. § 271.

427. For example, the LenSx meets each limitation of claim 1 of the '548 patent, which claims:

> A scanning system for treating target tissue in a patient's eye, comprising:
>
> a) an ultrafast laser source configured to deliver a laser beam comprising a plurality of laser pulses;

b) an Optical Coherence Tomography (OCT) device configured to generate signals which may be used to create an image of the cornea and limbus of the eye of the patient;

c) a scanner configured to focus and direct the laser beam in a pattern within the cornea or limbus to create incisions therein; and

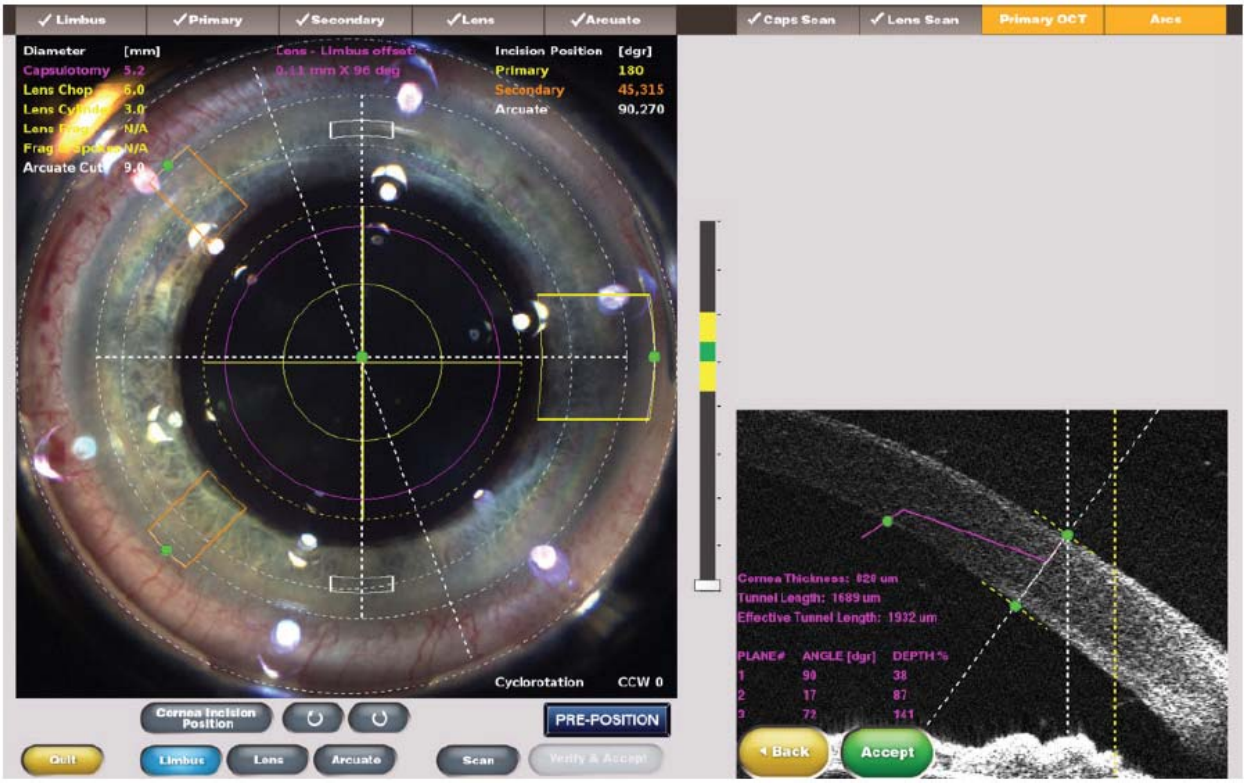
d) a controller operatively coupled to the laser source and scanner programmed to determine a treatment pattern based upon the signals from the OCT device, the treatment pattern forming a cataract incision in the cornea that provides access for lens removal instrumentation to a crystalline lens of the patient's eye and one or more relaxation incisions in the cornea or limbus, wherein the cataract incision has an arcuate extent of less than 360 degrees in a top view, wherein the cataract incision includes a bevel shape in a cross-sectional view, the bevel shape including a first segment and a second segment which intersect each other at an angle, the cataract incision being entirely located in the cornea and intersecting both an anterior surface and a posterior surface of the cornea, and to control the scanner to scan the position of the laser beam in the treatment pattern.

428. The LenSx has a scanning system for treating target tissue in a patient's eye. For example, Alcon has stated "[t]he LenSx® Laser is indicated for use in patients undergoing cataract surgery for removal of the crystalline lens. Intended uses in cataract surgery include … the creation of single plane and multi-plane arc cuts/incisions in the cornea. … The incision is achieved by contiguously placed microphotodisruptions scanned by a computer-controlled delivery system."

429. The LenSx has an ultrafast laser source configured to deliver a laser beam comprising a plurality of laser pulses. For example, Alcon has stated "[t]he

LenSx® Laser System uses focused femtosecond laser pulses to create incisions and separates tissue in the lens capsule, crystalline lens and cornea."

430. The LenSx has an Optical Coherence Tomography (OCT) device configured to generate signals which may be used to create an image of the cornea and limbus of the eye of the patient. For example, Alcon has stated that "[a]n optical coherence tomography (OCT) imaging device and a video camera microscope (VM) are used to localize specific targets and to view the patient's eye." For example, Alcon has shown an OCT image as follows, which includes the cornea and limbus of the patient's eye:

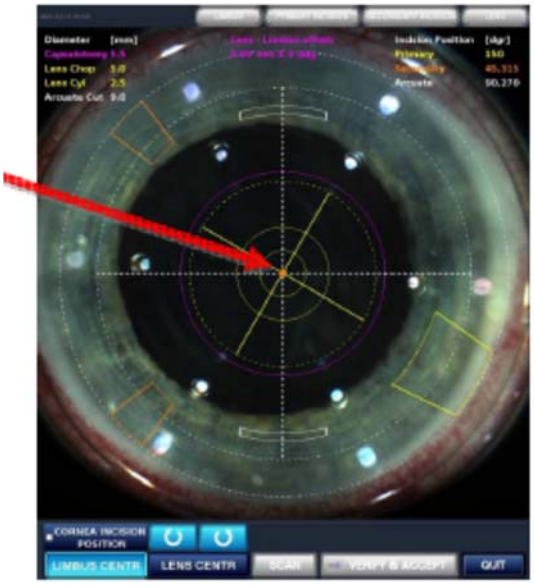


431. The LenSx has a scanner configured to focus and direct the laser beam in a pattern within the cornea or limbus to create incisions therein. For example, Alcon has stated "[t]he LenSx® Laser creates incisions through tightly focused femtosecond laser pulses that cut tissue with micron-scale precision. The incision is achieved by contiguously placed microphotodisruptions scanned by a computer-controlled delivery system." For example, Alcon has stated that "[t]he Primary Incision Pattern parameter screen allows the user to specify pattern geometry and laser scanning parameters. Its basic shape is an arc cut at the periphery of the cornea." Alcon has also stated that "[a]rcuate corneal cuts can be made using the Arcuate Incision Pattern."

432. The LenSx has a controller operatively coupled to the laser source and scanner programmed to determine a treatment pattern based upon the signals from the OCT device. For example, Alcon has stated that "[c]omputer controlled scanning mirrors direct the light through a beam expander and through a focusing objective onto a spot at pre-determined depth within the eye." Alcon has also stated that "[t]he Surgical Display also includes an optical coherence tomography (OCT) based imaging device that assists in localizing specific target locations."

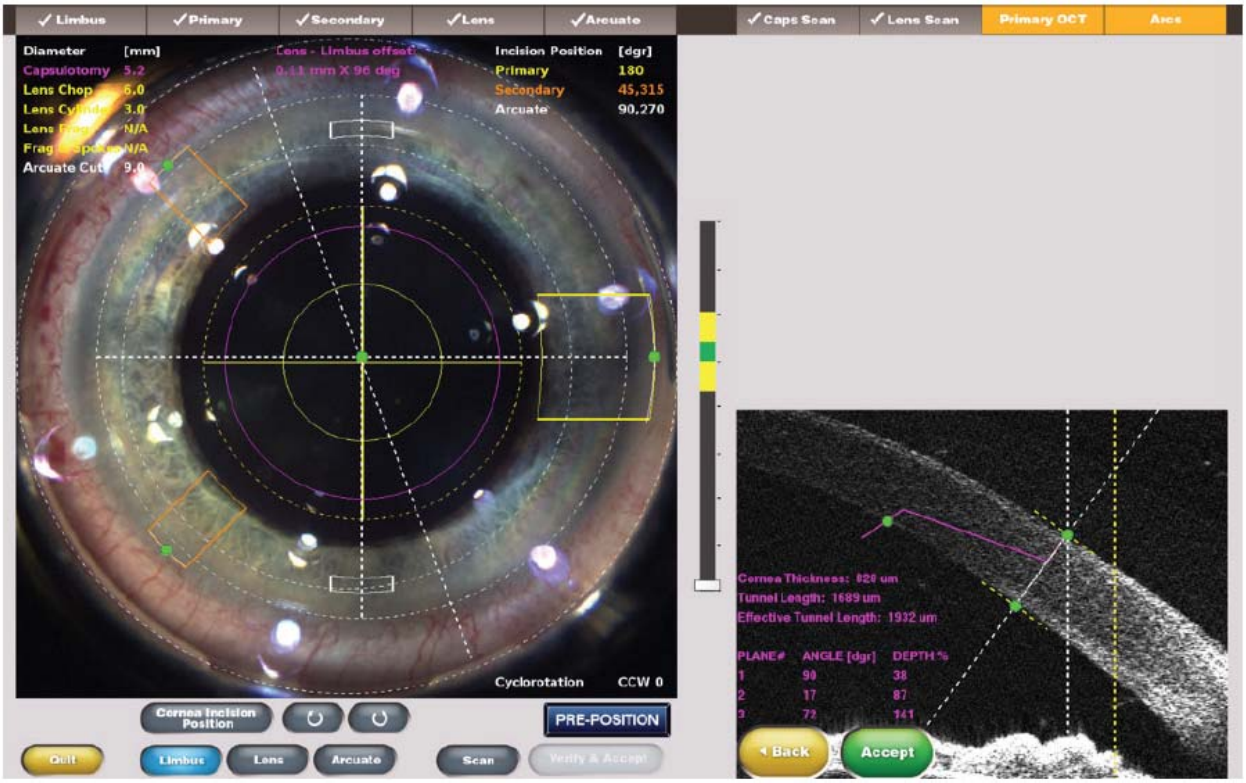
433. The LenSx treatment pattern forms a cataract incision in the cornea that provides access for lens removal instrumentation to a crystalline lens of the patient's eye and one or more relaxation incisions in the cornea or limbus, wherein the cataract

incision has an arcuate extent of less than 360 degrees in a top view. For example, Alcon has stated that "[t]he LenSx® Laser is indicated for use in patients undergoing cataract surgery for removal of the crystalline lens." Alcon has also stated that "[t]he Primary Incision Pattern is used to create corneal incisions. … The Primary Incision Pattern may represent a completely penetrating cut or a partial thickness cut. … The Primary Incision Pattern parameter screen allows the user to specify pattern geometry and laser scanning parameters. Its basic shape is an arc cut at the periphery of the cornea." Additionally, Alcon has stated that "[a]rcuate corneal cuts can be made using the Arcuate Incision Pattern. Arcuate Incision Pattern cuts are arc-shaped partial thickness cuts and are made in the cornea at a programmed diameter from the center." Alcon has shown the cataract incisions as follows:




The cataract incisions (yellow and orange boxes) have an arcuate extent of less than 360 degrees in a top view.

434. The LenSx cataract incision includes a bevel shape in a cross-sectional view, the bevel shape including a first segment and a second segment which intersect each other at an angle, the cataract incision being entirely located in the cornea and intersecting both an anterior surface and a posterior surface of the cornea, and to control the scanner to scan the position of the laser beam in the treatment pattern. For example, Alcon has also stated "[a]n X-Z cross-section of the Primary Incision Pattern is depicted. This representation of the incision is referred to as the Tunnel. The Tunnel may be composed of 1, 2 or 3 separate line segments representing the planes specified in the Primary Incision Pattern parameter programming step. … The numeric values of the tunnel length (distance from Epithelial control point to Tunnel control point), effective tunnel length (sum of distances of each plane making up the tunnel), corneal thickness are displayed. The angles and the percent depth of cornea for each plane making up the Primary Incision Pattern are also displayed." Alcon has stated that the "Primary Incision Pattern may represent a completely penetrating cut." Alcon has shown the segments intersecting both an anterior surface and a posterior surface of the cornea as follows:




Alcon has also stated that "[a] computer monitors and controls the beam energy, repetition rate, safety shutters, footswitch, laser diagnostics, the position of the scanners and the position of the scanning objective lens."

435. Alcon's manufacture, use, offer to sell, and sale of the LenSx in the United States has infringed and continues to infringe the '548 patent under 35 U.S.C. § 271(a).

436. Alcon's customers in the United States have directly infringed and continue to directly infringe the '548 patent by using the LenSx for its FDA-approved indications (including corneal cuts/incisions during cataract surgery).

437. Alcon has actively induced and continues to actively induce infringement of the '548 patent by encouraging its customers to use the LenSx, with specific intent, knowledge and/or willful blindness that the induced acts constitute patent infringement, in violation of 35 U.S.C. § 271(b). Upon information and belief, Alcon's inducing acts include marketing the LenSx, supporting the ongoing use of the LenSx by providing consumables for use with the LenSx, and providing installation, maintenance, service, and/or repair of the LenSx. Alcon's inducing acts also include providing instructions to use the LenSx in an infringing manner, including providing the information relevant to each of the claim limitations that is referenced and/or quoted in the paragraphs above. Additionally, upon information and belief, Alcon has published and provided product documentation and educational materials that instruct and encourage its customers to use the LenSx for its FDA-approved indications (including corneal cuts/incisions during cataract surgery) in an infringing manner. For example, upon information and belief, Alcon warns customers in the Operator's Manual for the LenSx that its "instructions must be observed."

438. Alcon has known of the '548 patent and of its infringement prior to this litigation, and it is further on notice through this lawsuit. Alcon's knowledge of the '548 patent, together with its knowledge about the design and operation of the LenSx, gave Alcon knowledge that its customers' use of the LenSx constitutes patent

infringement, because the language of the '548 patent claims plainly reads upon the LenSx. Alcon's knowledge of infringement is also demonstrated by its receipt of correspondence and infringement charts specifically identifying its infringing acts, the allegations contained in this amended complaint, its prior knowledge of the patent and the subject matter claimed, its statements touting the advantages of features that it knew to be patented, and the affirmative measures it took to address its risk of liability for patent infringement. Alcon's specific intent to induce infringement is demonstrated by its continued infringing acts despite this knowledge.

439. Alcon has infringed and continues to infringe the '548 patent by supplying or causing to be supplied in or from the United States, without authority, all or a substantial portion of the components of the patented invention, including but not limited to the LenSx (in either assembled or unassembled form), parts and software for the LenSx, and consumables such as the LenSx SoftFit Patient Interface, where such components are uncombined in whole or in part, in such a manner as to actively induce the combination of such components outside of the United States in a manner that would infringe the patent if such combination occurred within the United States, in violation of 35 U.S.C. § 271(f)(1). The components include but are not limited to the hardware and software components that are used to enable and perform "Cornea Arcuate," "Cornea Primary," and "Cornea Secondary" Programs

that perform the FDA-approved fully penetrating corneal cuts/incisions during cataract surgery in an infringing manner. Alcon's inducing acts include instructions on assembly and use of the LenSx and consumables for use with the LenSx, marketing the LenSx, and providing installation, maintenance, service, and/or repair of the LenSx. Alcon has stated that the "LenSx® Laser requires use of proprietary sterile disposable Patient Interfaces." Alcon has further stated "[t]he consumables used in conjunction with ALCON® instrument products constitute a complete surgical system." Additionally, upon information and belief, Alcon publishes and provides product documentation and educational materials that instruct and encourage its customers to use the LenSx for its FDA-approved indications for use and in an infringing manner, including providing the information relevant to each of the claim limitations that is referenced and/or quoted in the paragraphs above, with knowledge and/or with willful blindness that the induced acts constitute patent infringement.

440. Alcon is not licensed under the '548 patent.

441. The marking requirement of 35 U.S.C. § 287(a) has been satisfied through J&J Vision's marking of the Catalys® Precision Laser System.

442. J&J Vision has been damaged and will continue to be damaged by Alcon's infringement of the '548 patent.

443. J&J Vision has suffered and will continue to suffer irreparable harm unless and until Alcon's infringing activities are enjoined by this Court. J&J Vision does not have an adequate remedy at law.

444. Despite Alcon's knowledge of the '548 patent and of its infringing activities, Alcon has continued to manufacture, use, offer to sell, and/or sell the LenSx. Alcon's infringement of the '548 patent has been willful, making this an exceptional case and entitling J&J Vision to an award of increased damages and attorneys' fees.

## COUNT XVII
**Direct Infringement of the Copyrighted Computer Programs**

445. J&J Vision incorporates by reference the allegations set forth in paragraphs 1 through 444 as though fully set forth herein.

446. AMO Development owns the Asserted Copyrights in the iFS® Laser computer programs, which are valid and enforceable and protect the iFS® Laser computer programs and all copyrightable elements of those computer programs. The Asserted Copyrights were all properly registered with the U.S. Copyright Office prior to instituting the action for copyright infringement of those computer programs.

447. Alcon does not have authorization, license, or permission from J&J Vision to reproduce, prepare derivative works based on, distribute to the public, or export any of J&J Vision's computer programs or any protected elements of those programs.

448. Through the acts alleged above, Alcon has violated, and is continuing to violate, J&J Vision's exclusive rights to reproduce, prepare derivative works based on, distribute to the public, and export the copyrighted iFS® Laser computer programs, in violation of 17 U.S.C. §§ 106, 501, and 602.

449. On information and belief, when developing, adopting, and marketing the LenSx, Alcon was and remains aware that the iFS® Laser computer programs are protected by copyright, or acted or is acting in reckless disregard of the possibility that it was infringing and continues to infringe those copyrights. On information and belief, Alcon purposefully and without authorization incorporated into the LenSx software one or more protectable elements from the iFS® Laser computer programs, and Alcon was aware and continues to be aware that the LenSx software incorporates those protectable elements. At a minimum, Alcon was put on notice of its acts of copyright infringement as of July 14, 2020, when J&J Vision sent a letter identifying unambiguous evidence of such copying. Thus, Alcon's violations of J&J Vision's exclusive rights were and continue to be knowing, intentional, and willful.

## COUNT XVIII
**Secondary Liability for Infringement of the Copyrighted Computer Programs**

450. J&J Vision incorporates by reference the allegations set forth in paragraphs 1 through 449 as though fully set forth herein.

451. AMO Development owns the Asserted Copyrights, which are valid and enforceable and protect the iFS® Laser computer programs and all copyrightable

elements of those computer programs. The Asserted Copyrights were all properly registered with the U.S. Copyright Office prior to instituting this action for copyright infringement.

452. Users of the LenSx purchased from Alcon do not have authorization, license, or permission from J&J Vision to reproduce any of J&J Vision's computer programs.

453. Through the acts alleged above, users of the LenSx are engaged in acts of direct copyright infringement, including by reproducing the iFS® Laser computer programs.

454. On information and belief, when developing, marketing, and selling the LenSx, Alcon was and remains aware, or willfully blind, that its customers' use of LenSx would result in the infringement of J&J Vision's copyrights. Through the acts alleged above, Alcon knowingly induced, caused, and/or materially contributed to, and continues to induce, cause, and/or materially contribute to, those acts of direct infringement by its LenSx customers. Accordingly, Alcon is liable for contributory copyright infringement.

455. On information and belief, Alcon has a direct financial interest in its LenSx customers' infringing activities. Alcon profits from ongoing use of the LenSx by its customers, including from the sale of consumable parts and the charging of per-procedure and maintenance fees, which as alleged above entails the infringement

of the copyrighted iFS® Laser computer programs. On information and belief, Alcon also has the right and ability to supervise or control its customers' use of the LenSx (and thus, its LenSx customers' infringing activities). Alcon could prevent its LenSx customers' acts of infringement by, among other things, declining to sell the necessary consumable parts to those customers or by providing software updates that would replace the infringing software on its customers' devices. Accordingly, Alcon is liable for vicarious copyright infringement.

## COUNT XIX
## Infringement of the Confidential FDA Submissions and Internal Technical Documentation

456. J&J Vision incorporates by reference the allegations set forth in paragraphs 1 through 455 as though fully set forth herein.

457. AMO Development owns the Asserted Copyrights in the confidential submissions made to the FDA to seek regulatory approval for the iFS® Laser and IntraLase Fusion Laser, including the internal technical documentation compiled and attached thereto. Those copyrights are valid and enforceable and protect all copyrightable elements of those works. The Asserted Copyrights in those works were all properly registered with the U.S. Copyright Office prior to instituting this action for copyright infringement of them.

458. Alcon does not have authorization, license, or permission from J&J Vision to reproduce, prepare derivative works based on, or otherwise exploit J&J

Vision's confidential FDA 510(k) submissions, internal technical documentation, or any protected elements of those works.

459. Through the acts alleged above, Alcon has violated, and is continuing to violate, J&J Vision's exclusive rights to reproduce, prepare derivative works based on, distribute to the public, and/or export J&J Vision's confidential FDA 510(k) submissions or internal technical documentation, in violation of 17 U.S.C. §§ 106, 501, and 602.

460. On information and belief, when developing, adopting, and marketing the LenSx, Alcon was and remains aware that the iFS® Laser and IntraLase Fusion Laser confidential FDA 510(k) submissions and internal technical documentation are protected by copyright, or acted or is acting in reckless disregard of the possibility that it was infringing and continues to infringe those copyrights. On information and belief, Alcon purposefully and without authorization copied into the LenSx FDA 510(k) submissions one or more protectable elements from the iFS® Laser and IntraLase Fusion Laser confidential 510(k) submissions, and Alcon was aware and continues to be aware that the LenSx 510(k) submissions incorporate those protectable elements. On information and belief, Alcon purposefully and without authorization copied into the LenSx technical documentation one or more protectable elements from the iFS® Laser and IntraLase Fusion Laser internal technical documentation, and Alcon was aware and continues to be aware that the

LenSx technical documentation incorporates those protectable elements. Thus, Alcon's violations of J&J Vision's exclusive rights were and continue to be knowing, intentional, and willful.

**COUNT XX**
**Infringement of the IntraLase Operator's Manual**

461. J&J Vision incorporates by reference the allegations set forth in paragraphs 1 through 460 as though fully set forth herein.

462. AMO Development owns the Asserted Copyright in the IntraLase FS Laser operator's manual. That copyright is valid and enforceable and protects all copyrightable elements of that work. The Asserted Copyright in that work was properly registered with the U.S. Copyright Office prior to instituting the action for copyright infringement of it.

463. Alcon does not have authorization, license, or permission from J&J Vision to reproduce, prepare derivative works based on, or otherwise exploit the IntraLase FS Laser operator's manual, or any protected elements of that work.

464. Through the acts alleged above, Alcon has violated, and is continuing to violate, J&J Vision's exclusive rights to reproduce, prepare derivative works based on, distribute to the public, and/or export the IntraLase FS Laser operator's manual, in violation of 17 U.S.C. §§ 106, 501, and 602. On information and belief, when developing, adopting, and marketing the LenSx, Alcon was and remains aware that the IntraLase FS Laser operator's manual is protected by copyright, or acted or

is acting in reckless disregard of the possibility that it was infringing and continues to infringe that copyright. On information and belief, Alcon purposefully and without authorization copied into the LenSx operator's manuals one or more protectable elements from the IntraLase FS Laser operator's manual, and Alcon was aware and continues to be aware that the LenSx operator's manual incorporates those protectable elements. Thus, Alcon's violations of J&J Vision's exclusive rights were and continue to be knowing, intentional, and willful.

## PRAYER FOR RELIEF

WHEREFORE, J&J Vision prays for a judgment that:

A. Alcon has infringed and, unless enjoined, will continue to infringe the Asserted Patents and Asserted Copyrights;

B. Enjoins Alcon and its officers, agents, servants, employees, attorneys, licensees, successors, customers, and all other persons acting in concert or participation with them, from further infringement of the Asserted Patents and Asserted Copyrights;

C. Awards J&J Vision damages adequate to compensate for Alcon's infringement of the Asserted Patents, including an accounting and/or supplemental damages for any infringing sales not presented at trial and through final judgment, together with pre-judgment and post-judgment interest as allowed by law, and other damages permitted under 35 U.S.C. § 284;

D. Declares Alcon's infringement of the Asserted Patents to be willful and awards enhanced damages in an amount to be treble the amount of compensatory damages as justified under 35 U.S.C. § 284;

E. Declares that this is an exceptional case under 35 U.S.C. § 285, and awards J&J Vision reasonable attorneys' fees, including pre-judgment interest on such fees;

F. Orders Alcon to return all copies of J&J Vision's copyrighted works;

G. Awards actual damages and infringer's profits under 17 U.S.C. § 504(b) for Alcon's infringement of the Asserted Copyrights;

H. Orders impoundment or destruction of all infringing articles under 17 U.S.C. § 503, including, as necessary, while the present action is pending;

I. Awards pre-judgment and post-judgment interest, costs, and expenses; and

J. Awards such other and further relief as this Court deems just and proper.

**JURY DEMAND**

J&J Vision hereby demands trial by jury on all issues so triable.

MORRIS, NICHOLS, ARSHT & TUNNELL LLP

*/s/ Brian P. Egan*

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